that no froſt how great or violent ſoeuer, ſhall by any meanes anoy or offend you. And thus much for the knowledge of Lyme and the ſeuerall vſes, with which I end this briefe Treatiſe or Summarie Collection of this pleaſant and delightfull Art of Fouling, which if it giue any ſmall ſatisfaction or contentment, to the induſtrious and diligent Reader, I haue the full accomplishment of my deſire, and hold my paine ſufficiently rewarded.

FINIS.

A WAY TO GET WEALTH:

Containing sixe Principall Vocations or Callings, in which every good Husband or Houſe-wife may lawfully imploy themſelves.

AS,

I. *The natures, ordering, curing, breeding, choice, uſe, and feeding of all ſorts of Cattell and Fowle, fit for the ſervice of Man: As alſo the riding and dieting of Horſes, either for Warre or Pleaſure.*

II. *The knowledge, uſe, and landable practiſe of all the recreations meete for a Gentleman.*

III. *The office of a Houſewife, in Phyſicke, Surgery, extraction of Oiles, Banquets, Cookerie, ordering of Feaſts, preſerving of Wine, conceited Secrets, Diſtillations, Perfumes, ordering of Wooll, Hempe, Flaxe, Dying, uſe of Dayries, Malting, Brewing, Baking, and the profit of Oates.*

IV. *The enrichment of the Weald in Kent.*

V. *The husbanding, and enriching of all ſorts of barren grounds, making them equall with the moſt fruitfull, with the preſervation of Swine, and a computation of Men and Cattels labours, &c.*

VI. *The making of Orchards, Planting and Grafting, the office of Gardening, and the ornaments, with the beſt husbanding of Bees.*

The firſt five Bookes gathered by *G. M.* The laſt by Maſter *W. L.* for the benefit of Great Britaine.

The ſixt time corrected and augmented by the Author.

LONDON,
Printed by *E. G.* for *John Harison*, and are to be ſold at the Golden Vnicorne in *Pater-noſter Rowe.* 1638.

BRITISH MUSEUM

Cheape and good
HVSBANDRY
For the well-Ordering of all Beasts and Fowles, and for the generall Cure of their Diseases.

Containing the Natures, Breeding, Choice, Vse, Feeding, and Curing of the diseases of all manner of Cattell, as *Horse, Oxe, Cow, Sheepe, Goats, Swine,* and tame *Conies.*

Shewing further, the whole Art of Riding great Horses, with the breaking and ordering of them, and the dieting of the Running, Hunting, and Ambling Horse, and the manner how to use them in their travaile.

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The sixt Edition.

Printed at London by *Anne Griffin*, for IOHN HARISON, and are to be sold at his shop in Pater-noster-row. 1631.

BRITISH MUSEUM

TO THE RIGHT HONOVRABLE,

And

Moſt ennobled with all inward and outward vertues, RICHARD SACKVILE, Baron of *Buckhurſt*, and Earle of *Dorſet*, &c.

ALthough the monſtrous ſhapes of Bookes (Right Honorable and beſt ennobled Lord) have with their diſguiſed and unprofitable viſard-like faces, halfe ſcared even vertue her ſelfe from that ancient defence and patronage, (which in former ages moſt Nobly ſhe imployed) to preſerve them from Envie: yet ſo much I know the largeneſſe of your worthy breſt is endued with wiſdome, courage, and bounty, that notwithſtanding the vanities of our ignorant Writers, you will be pleaſed out of your Noble Spirit, favourably to be-

hold whatsoever shal bring a publike good to our Countrey, at which end I have onely aymed in this small Booke. In which having runne farre from the way or tract of other Writers in this nature, yet I doubt not but your Honour shall finde my path both more easie, more certaine, and more safe than any; nay, by much, farre lesse difficult or dangerous to walke in. I must confesse, something in this nature I have formerly published, as namely of the Horse onely, with whose nature and use I have beene exercised and acquainted from my Child-hood: and I hope, without boast, need not yeeld to any in this Kingdome. Yet in this worke, I hope, your Lordship, and all other Princely maintainers of that worthy and serviceable beast, shall finde I have found out, and herein explained a nearer and more easie course for his preservation and health, than hath hitherto beene found or practised by any, but my selfe onely; Whatsoever it is, in all humblenesse I offer it as a sacrifice of my love and service to your Honor, and will ever whilest I have breath to be,

be your Honours

in all dutifull service,

C. M.

TO THE COVRTEOVS READER.

THere is no Artiſt or man of Induſtry (Courteous and Gentle Reader) which mixeth judgement with his experience, but findeth in the travell of his labours better and nearer courſes to make perfect the beauty of his worke, than were at firſt preſented to the eye of his knowledge: for the minde being pre-occupied and buſied with a vertuous ſearch, is ever ready to catch hold of whatſoever can adorne or illuſtrate the excellencie of the thing in which hee is imployed: and hence it hapneth that my ſelfe having ſeriouſly beſtowed many yeares to finde out the truth of theſe knowledges, of which I have intreated in this Booke; have now found out the infallible way of curing all diſeaſes in Cattell, which is by many degrees more certaine, more eaſie, leſſe difficult, and without all manner of coſt and extraordinary charges, than ever have beene publiſhed by any home-borne, or forraigne practiſer. Wherein (friendly Reader) thou ſhalt finde that my whole drift is to helpe the needfull in his moſt want and extremity. For having many times in my journeying ſeene poore and rich mens Cattell fall ſodainely ſicke, ſome travelling by the way, ſome drawing in the Plough or draught, and ſome

upon other imployments; I have also beheld those Cattell or Horse die ere they could bee brought either to Smith, or other place where they might receive cure; nay, if with much paines they have beene brought to the place of cure, yet have I seene Smiths so unprovided of Apothecary Simples, that for want of matter of sixepence, a Beast hath dyed worth many Angels. To prevent this, I have found out those certaine and approved Cures; wherein if every good Horse-lover, or Husbandman, will but acquaint his knowledge with a few herbs or common weeds, hee shall be sure in every Field, Pasture, Meadow, or Land-furrow; nay, almost by every High-way side or blinde ditch, to finde that which shall preserve and keepe his Horse from all sodaine extremities. If thou shalt finde benefit, thinke mine houres not ill wasted; if thou shalt not have occasion to approve them, yet give them thy gentle passage to others, and thinke me as I am,

Thy Friend,

G. M.

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Auripigmentum, or *Orpment*, is a yellow hard ſubſtance to be bought at the Pothecaries.

Ariſtolochia-longa, otherwiſe called red *Madder*, is an herbe growing almoſt in every field.

Ariſtolochia-rotunda, is the herbe called *Galingale*.

Agrimony, or *Egrimony*, is an uſuall and knowne herbe.

Ameos, or *Comin-royall*, is an herbe of ſome called *Bulwort*, *Biſhops-weed*, or *Herb-william*.

Aniſe, is that herbe which beares *Anyſe-ſeeds*.

Avet, of ſome called *Dill*, is an herbe like *Fennell*, only the ſeeds are broad like *Orenge-ſeeds*.

Agnus-caſtus, of ſome called *Tuteſaine*, is and an herbe with reddiſh leaves, and ſinewy like *Plantaine*.

Ægyptiacum, is a reddiſh *Vnguent* to bee bought at the Pothecaries, and is ſoveraigne for *Fiſtulaes*.

Aſſafœtida, a ſtinking ſtrong gumme to bee bought at the Pothecaries.

Adraces, or *Adarces* is that *Salt* which is ingendred on the ſalt Mariſhes by the violence of the Sunnes heat after the tide is gone away.

Aſterion, is an herbe growing amongſt ſtones, as on

walls, or ſuch like, it appeareth beſt by night, it hath yellow flowers like *Foxegloves*, and the leaves are round and blewith.

Aloes, is a bitter gumme to bee bought at the Pothecaries.

B

BEtin, or *Beets*, is an herbe with long broad leaves indented, and growes in hedge-rowes.

Bolarmoniacke, is a red hard earthy ſubſtance, to bee bought at the Pothecaries, and is of a cold and binding nature.

Broomewort, is an herbe with browne coloured leaves, and beareth a blew flower, and moſt commonly growes in woods.

C

Creſſes are of two kindes, *Water-Creſſes*, and *Land-Creſſes*: they have broad ſmooth leaves, and the firſt growes in moyſt places, the latter in Gardens, or by high-wayes.

Comin, ſee *Ameos*.

Carthamus is an herbe in taſte like *Saffron*, and is called *baſtard-Saffron*, or *mocke-Saffron*.

Calamint is an ordinary herbe, and groweth by ditches ſides by high-wayes, and ſometimes in Gardens.

Coriander is an herbe which beareth a round little ſeed.

Cives, are a ſmall round herbe growing in Gardens, like little young *onions*, or *Scallions* not above a weeke old.

D

DIapente, a ſoveraigne powder made of five equall ſimples, as *Bay-berries*, *Ivorie*, *Ariſtolochia-rotunda*,

Myrrhe

Myrrhe, and *Gentiana*, may bee bought of the Pothecary.

Dettony is an herbe called *Pepper-wort*, or *Horse-radish*, and groweth in many open fields.

Dragon is an herbe common in every Garden.

E

Elecampana is an herbe of some called *Horse helme*, and growes almost in every field, and every Garden.

Eye-bright is an herbe growing in every Meadow.

F

Fenegreeke is an herbe which hath a long slender trayling stalke, hollow within, and sowne in Gardens, but easiest to be had at the Pothecaries.

Ferne of mud is an herbe, of some called *Water-ferne*, hath a triangular stalke, and is like *Polipody*, and it growes in bogs and hollow grounds.

G

Galingale, see *Aristolochia rotunda*.

H

Horse-mint is an herb that growes by waters sides, and is called *water-mint*, or *Brooke-mint*.

Horse-helme, see *Elecampana*.

House-leeke is a weed which growes upon the tops of houses that are thatcht, and are like unto a small *Artichocke*.

Herbe-Robert hath leaves like *Herbe-Bennet*, and small flowers of a purple colour, and growes in most common fields and gardens.

I

Ivory is the shavings of the *Elephants* tooth, or the old *Harts* or *Stags* horne, being the smooth white thereof.

K

Knot-grasse is a long round weed, with little round smooth leaves, and the stalke very knotty and rough, winding and wreathing one seame into another very confusedly, and groweth for the most part in very moyst places.

L

Lettice is a common sallet herbe in every garden.

Lolliuer is that weed which wee call *Cockell*, and groweth amongst the corne in every field.

Liverwort is a common herbe in every garden.

M

Mayth is a weed that growes amongst corne, and is called of some *Hogs Fennell.*

Myrrhe is a gumme to be bought at the Pothecaries.

Mann-dragge is an herbe which growes in gardens, and beareth certeine yellow Apples, from whence the Pothecaries draw a soveraigne oyle for broken bones.

N

Neepe, see *Calamint.*

O

Origanum is an herbe called *Wilde-Marjoram*, and growes both in open fields, or in low copses.

Orifice is the mouth, hole, or open passage of any wound or ulcer.

Opoponax, a drugge usuall to be bought at the Pothecaries.

P

Pitch of Burgundy is *Rossen*, and the blacker the better

Plantaine is a fat leafe and sinewie, growing close

to the ground, and is called *Whay-bred* leafe.

Pulioll-royall is an herb that groweth both in fields and gardens, and is beſt when it flowreth.

Patch greaſe is that tallow which is gotten from the boyling of Shoomakers ſhreads.

Q

Vinque folio, of ſome called *Cinque-foyle*, is that herbe which is called *Five-leaved* graſſe.

R

Red Oaker is a hard red ſtone which wee call *Raddle*, *Orell*, *Marking-ſtone*.

S

Elendine, or *Tetterwort* is a weed growing in the bottome of hedges, which being broke, a yellow juyce will drop and runne out of it.

Shirwit is an herbe with many ſmall leaves, and growes moſt in gardens.

Stubwort is an herbe which growes in woody places, and is called *Wood Sorrell*.

Sanguis Draconis is a hard red gumme to be bought at the Pothecaries.

Sperma-Cetæ is the ſeed of the *Whale*, excellent for inward bruiſes, and to be bought at the Pothecaries.

Stonecrop is a greene weed growing on the tops of walles.

Salarmoniacke is a drug to be bought at the Pothecaries.

T

Tuſſilaginis is that weed which we call *Colts-foot*.

Triapharmicon a compoſition made of three ſimples, and to be bought at the Pothecaries.

Turnemericke is a yellow Simple, of ſtrong ſavour, to be bought at the Pothecaries.

Verdi-

V

VErdi-greaſe is a greene fatty gumme drawne from *Copper*, and is to be bought at the Pothecaries.

W

VWoodroſe, or *Wild Eglantine*, is that ſmall thinne flower which growes upon *Bryars* in Woods or Hedges.

Y

YArrow is an herbe called the *Water-violet*, and growes in Lakes or Mariſh grounds.

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FINIS.

The Diviſion of the titles intreated of in theſe Bookes following.

1. FIrſt, of the *Horſe*, his Nature, Diſeaſes, and Cures; with the whole Art of Riding, and ordering all ſorts of *Horſes*, from *fol.* 1. to 88.
2. Of the *Bull*, *Cow*, *Calfe*, or *Oxe*, ther breeding, feeding, and curing. from *fol.* 88. to 107.
3. Of Sheepe, their choyce, uſe, ſhape, infirmities, and preſervation. from *fol.* 107. to 120.
4. Of *Goats*, their nature, ſhape, ordering, and curing, from *fol.* 121. to 126.
5. Of *Swine*, their choice, breeding, curing, and feeding, in either Champion or Wood countreyes. from *fol.* 126. to 138.
6. Of tame *Coneyes*, from *fol.* 138. to 144.
7. Of *Poultry*; their ordering, fatting, cramming, and curing all the diſeaſes to them incident. from *fol.* 144. to 163.
8. Of *Hawkes*, either ſhort-winged, or long-winged; the generall cures for their diſeaſes and infirmities. from *fol.* 164. to 176.

Of

9. Of *Bees*, their ordering, profit, and preservation, from *fol.* 177. to 183.
10. Of *Fishing*, and making *Fish ponds*, from *fol.* 138. to the end.

Published by Authority.

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THE GENERALL CVRE and Order of all HORSES: As alſo the whole Art of Riding great Horſes, with the breeding, breaking, and ordering of them: Together with the manner how to uſe the Running, Hunting, and ambling Horſe, before, in, and after their Travell.

CHAPTER I.

Of the Horſe in generall, his choice for every ſeverall uſe, his Ordering, Diet, and beſt preſervation for health both in Travell and in reſt.

THE full ſcope and purpoſe of this work, is in few, plaine, and moſt undoubted true words, to ſhew the Cure and manner of diſeaſes belonging to all manner of neceſſary Cattell, nouriſhed and preſerved for the uſe of man; making by way of demonſtration ſo eaſie and plaine a paſſage, to the underſtanding and accompliſhment of the ſame, that not the ſimpleſt which hath priviledge to be eſteemed no Idiot, nor the pooreſt, if hee can make two ſhillings, but ſhall both underſtand how to profit himſelfe by the Booke,

and at the deareſt rate purchaſe all the receipts & ſimples declared in the whole Volume. For in ſober truth, this Booke is fit for every Gentleman, Husbandman, and good mans pocket being a memory which a man carrying about him will when it is calld to account, give a man full ſatisfaction, whether it be in the Field, in the towne, or any other place, where a man is moſt unprovided.

Nature of Horſes.

And now for as much as the Horſe of all Creatures is the nobleſt, ſtrongeſt, and apteſt to doe a man the beſt and worthieſt ſervices, both in Peace and War, I thinke it not amiſſe firſt to begin with him. Therefore for his nature in generall: He is valiant, ſtrong, nimble, and above all other beaſts moſt apt and able to endure the extremeſt labours: the moiſt quality of his compoſition being ſuch, that neither extreme heat doth dry up his ſtrength, nor the violence of cold freeze the warme temper of his moving ſpirits, but that where there is any temperate government, there he withſtandeth all effects of ſickneſſe, with an uncontrolled conſtancy. He is moſt gentle and loving to man, apt to be taught, and not forgetfull when any impreſſion is fixed in his braine. He is watchfull above all other beaſts, and will indure his labour with the moſt empteſt ſtomacke. Hee is naturally given to much cleanlineſſe, is of an excellent ſent, and offended with nothing ſo much as evill ſavours.

The choice of Horſes and their ſhapes.

Now for the choyce of the beſt Horſe, it is divers, according to the uſe for which you will imploy him. If therefore you would have a Horſe for the Warres, you ſhall chuſe him that is of a good tall ſtature, with a comly leane head, and out-ſwelling fore-head, a large ſparkling eye, the white whereof is covered with his eye-browes, and not at all diſcerned, or if at all, yet the leaſt is beſt, a ſmall thinne eare, ſhort and pricking; if it be long, well

carried,

carryed, and ever moving, it is tolerable; but if dull or hanging, most hatefull: a deepe necke, large creſt, broad breaſt, bending ribs, broad and ſtraight chin, round and full buttocke, with his huckle-bones hid, a taile high and broad, ſet on neither too thicke nor too thinne, for too much haire ſhewes ſloth, and too little, too much choller and heat: a full ſwelling thigh, a broad, flat, and leane legge, ſhort paſtern'd, ſtrong joynted, and hollow hoves, of which the long is beſt, if they be not wierd, and the broad round the worſt.

The beſt colours are Browne-bay, Dapple-gray, Roand, Bright-bay, Blacke with a white neere-foote behind, white farre-foot before, white rache or waite ſtar, Cheſſe-nut or Sorrell, with any of thoſe markes, or Dun with a blacke liſt: And of theſe Horſes, for the warres, the courſer of *Naples* is accounted the beſt, the *Almaine*, the *Sardinian*, or the *French*. Colours of Horſes.

If you will chuſe a Horſe for a Princes Seat, any ſupreme Magiſtrate, or for any great Lady of ſtate, or woman of eminence, you ſhall chuſe him that is of the fineſt ſhape, the beſt reyne, who naturally beares his head in the beſt place, without the helpe of the mans hand, that is of nimbleſt and eaſieſt pace, gentle to get upon, bold without taking affrights, and moſt familiar and quiet in the company of other horſes: his colour would ever be milke-white, with red fraynes, or without, or elſe faire dapple-gray, with white maine and white taile; And of theſe the *Engliſh* is beſt, then the *Hungarian*, the *Swethland*, the *Poland*, the *Iriſh*. Horſes for a Princes Seat.

If you will chuſe a horſe only for travell ever the better ſhape, the better hope, eſpecially looke that his head be leane, eyes ſwelling outward, his necke well riſen, his chin well riſen, his joynts very ſtrong, but above all, his Horſes for Travell.

pasternes short and straight, without bending in his going, and exceeding hollow and tough hoves: let him be of temperate nature, neither too furious, nor too dull, willing to goe without forcing, and not desirous to run when there is no ocasion.

Hunting horses. If you will chuse a Horse for hunting, let his shape in generall be strong, and well knit together, making equall proportions; for as unequall shapes shew weakneſſe, so equall members assure strength and indurance. Your unequall shapes are, a great head to a little necke, a bigge body to a thin buttocke, a large nimble to a little foot, or any of these contraries, or where any member suits not with the whole proportion of the body, or with any limbe next adjoyning. Above all, let your hunting horse have a large leane head, wide nostrils, open chauld, a bigge Wesand, and the Wind-pipe straight, loose, well covered, and not bent in the pride of his Reyning: The English horse basterdized with any of the former Races first spoake of, is of all the best.

Running horses. If you chuse a horse for running, let him have all the fineſt shape that may be, but above all things let him be nimble, quicke and fiery, apt to flie with the least motion: long shapes are sufferable, for though they show weakneſſe, yet they assure sudden speed. And the best horse for this use, is the *Arabian*, *Barbary*, or his bastard: Iennets are good, but the *Turkes* are better.

Coach horses. If you will chuse a horse for the Coach, which is called the swift draught, let his shape be tall, broad and well furnisht, not grosse with much flesh, but with the bigneſſe of his bones; especially looke hee have a strong necke, a broad breast, a large chin, sound cleane limbs, and tough hoves: and for this purpose your large English Geldings are best, your Flemish Mare next, and your strong

ston'd

ston'd horses tolerable, *Flemish* or *Friseon.*

If you will chuse a horse for portage, that is, for the Packe or Hampers, chuse him that is exceeding strong of body and limbes, but not tall, with a broad backe, out-ribs, full shoulders, and thicke withers; for if hebe thin in that part, you shall hardly keepe his backe from galling: be sure that hee take a long stride with his feete, for their pace being neither trot, nor amble, but onely a foot pace, he which takes the largest strides, goes at the most ease, and rides his ground fastest. Pack-horses.

Lastly, if you will chuse a horse for the Cart or Plough, which is the slow draught, chuse him that is of most ordinary height, for horses in the Cart unequally sorted, never draw at ease, but the tall hang up the low horse. Let them be of good strong portion, big breasted, large bodied, and stong limb'd, by nature rather inclin'd to crave the whip, then to draw more than is needfull. And for this purpose, Mares are most profitable; for besides the effecting of your work, they yeerely bring you forth increase: therefore if you furnish your draught with Mares to breed, observe in any wise to have them faire-fore-headed, that is, good head, necke, breast and shoulders; for the rest it is not so regardfull, onely let her body be large, for the bigger roome a Foale hath in the dammes belly, the fairer are his members. And above all things, observe never to put your draught beasts to the saddle, for that alters their pace, and hurts them in their labours. Cart-horses. Of Mares.

Now for the ordering of these severall horses: first for the horse for service, during the time of his teaching which is out of the wars, you shall keepe him high and lustily, his food no straw, but good hay, his provender cleane dry oats, or two parts oats and one part Beanes, or Ordering of Horses for service.

Peaſe, well dryed and hard, the quantity of halfe a pecke at a watering, morning, noone, and evening is ſufficient. In his daies of reſt you ſhall dreſſe him betwixt five and ſixe in the morning, water betwixt ſeven and eight, and feed from nine till after eleaven: in the afternoone you ſhall dreſſe betwixt three and foure, water betwixt foure and five, and give provender till ſix, then litter at eight, and give food for all night. The night before hee is ridden, you ſhall at nine of clocke at night take away his hay from him; at foure of clocke in the morning give him a handfull or two of Oates, which being eaten, turne him upon his ſnaffle, rub all his body and legges over with dry cloathes, then ſaddle him, and make him fit for his exerciſe. Soone as he is call'd for to be ridden, waſh his Bit in faire water, and put it into his mouth with all other things neceſſary, draw up his girths, and ſee that no buckles hurt him: then leade him forth, and as ſoone as he hath beene ridden, all ſweating as he is, leade him into the ſtable, and firſt rub him quickly over with dry wiſpes, then take off his ſaddle, and having rub'd him all over with dry cloathes, put on his houſing-cloth, then ſet on his ſaddle againe, and girt it; then leade him forth, and walke him up and downe in gentle manner, an houre or more, till he be cold; then ſet him up, and after two or three houres faſting, turne him to his meat: then in the afternoone, curry, rub, and dreſſe him, then water him, and order him as aforeſaid.

Ordering of Horſes for Princes ſeats.

For ordering of the horſe for a Prince, or great Ladies ſeate, let it be in his time of reſt, like unto the horſe for ſervice: and in his time of labour like the travelling horſe, as ſhall be ſhewed inſtantly: onely becauſe hee is to be more choicely kept, I meane in the beautifulleſt manner, his coate lying ſmooth and ſhining, and his whole body

without

without any ſtaine or ill-fauouredneſſe, you ſhall ever when hee hath beene ridden, and commeth in much ſweating, preſently have him into the ſtable, and firſt rub him downe with cleane wiſps, then taking off his ſaddle, with a ſword blade, whoſe edge is rebated, you ſhall ſtroake his necke and body cleane over, leaving no ſweat nor filth that can be gotten out; then cloath him up, and ſet on the Saddle, and walke him forth as aforeſaid: after, order and diet him as you doe other travelling horſes: drie Oates is his beſt provender, if hee be fat and full; and Oates and Beanes, if hee be poore, or ſubject to loſe his fleſh quickly.

Ordering of travelling horſes.

For your travelling horſe, you ſhall feede him with the fineſt Hay in the Winter, and the ſweeteſt graſſe in Summer: His provender would be dry Oates, Beanes, Peaſe or Bread, according to his ſtomack: in the time of reſt, halfe a pecke at a watering is ſufficient, in the time of his labour, as much as hee will eate with a good ſtomacke. When you travell him, water two houres before you ride, then rub, dreſſe, and laſtly feed, then bridle up, and let him ſtand on houre before you take his backe. Travell moderately in the morning, till his wind be rock'd, and his limbes warmed, then after doe as your affaires require. Be ſure at night to water your horſe two miles before you come to your journies end; then the warmer you bring him to his Inne, the better: walke not, nor waſh not at all, the one doth beget colds, the other foundring in the feete or body: but ſet him up warme, well ſtopt, and ſoundly rub'd with cleane litter. Give no meate whileſt the outward parts of your horſe are hot or wet with ſweate, as the eare-rootes, the flanckes, the necke, or under his chaps: but being dry, rub and feede him according to the goodneſſe of his

stomacke. Change of food begetteth a stomack, so doth the washing of the tongue or nostrils with vinegar, wine and salt, or warme urine. Stop not your horses fore-feet with Cowes dung, till hee be sufficiently cold, and that the blood and humours which were dispersed, be settled into their proper places. Looke well to his backe, that the saddle hurt not, to the girths that they gall not, and to his shooes that they be large, fast, and easie.

Ordering of hunting-horses.

For the ordering of your hunting-horse, let him in the time of his rest have all the quietnesse that may be, much Litter, much Meate, and much dressing: water ever by him, and leave him to sleep as long as he pleaseth. Keepe him to dung rather soft than hard, and looke that it be well coloured and bright, for darknesse shewes greasie and rednesse inward heating. Let exercises and mashes of sweet Mault after, be his usuall scourings, and let bread of cleane Beanes, or Beanes and Wheat equally mixt, be his best food, and Beanes and Oates the most ordinary.

Ordering of running-horses.

For the ordering of your Running-horse, let him have no more meat than to suffice nature, drink once in foure and twenty houres, and dressing every day once at noone onely. Let him have much moderate exercise, as morning and evening ayrings, or the fetching of his Water, and know no violence but in his courses onely. Let him stand darke and warme, have many cloathes, and much Litter, being wheat straw only. If he be very fat, scoure oft: if of reasonable state, scoure seldome: if leane, then scoure but with a sweet mash onely. Be sure your horse be empty before he course, and let his food be the finest, lightest, and quickest of digestion that may be: the sweats are more wholesome that are given abroad, and the cooling most naturall which is given before hee come into the stable. Keepe his limbes with coole ointments,

ments,

meates, and by no meanes let any hot ſpices come in his body: if he grow dry inwardly, waſh meat is wholeſome. If hee grow looſe, then give him ſtraw in more abundance. Burning of ſweete perfume in the ſtable is wholeſome; and any thing you either doe about your horſe, or give unto your horſe, the more neate, cleanly, and ſweete that it is, the better it nourisheth.

Ordering of Coach-horſes.

For ordering the Coach-horſe, let him have good dreſſing twice a day, hay and provender his belly full, and litter enough to ramble on, and hee cannot chuſe but proſper. Let him be waſh't and waſh't after travell, for by reaſon of their many occaſions to ſtand ſtill, they muſt be inur'd to all hardneſſe, though it be much unwholeſome. Their beſt food is ſweet hay, and well dried Beanes and Oates, or Beane-bread: Looke well to the ſtrength of their ſhooes, and the galling of their harneſſe: Keepe their legges cleane, eſpecially about the hinder feetlocks, and when they are in the houſe, let them ſtand warmely cloathed.

Ordering of the Packe and Cart-horſe.

For the ordering of the Pack-horſe, or the Cart-horſe, they need no waſhing, walking, or houres of faſting; onely dreſſe them well, looke to their ſhooes and backs, and then fill their bellies, and they will doe their labour. Their beſt food is ſweet hay, chaffe and Peaſe, or Oate-hulls and Peaſe, or chopt ſtraw and Peaſe mixt together: once a weeke to give them warme Graines and Salt is not amiſſe, for their labour will prevent the breeding of wormes, or ſuch like miſchiefes.

For the preſervation of all Horſes.

Now for the generall preſervation of horſes health, it is good whilſt a horſe is in youth and ſtrength, to let him blood twice in the yeere, that is, beginning of the Spring and begining of the Fall, when you may beſt afford him a weeks reſt. After you have let him blood, two daies af-

ter

ter give him a comfortable drench, as two ſpoonfulls of *Diapente*, or ſuch like, (which is called horſe *Methridate*) in a quart of ſtrong Ale. Vſe oft to perfume his head with Frankincenſe, and in the heat of Summer uſe oft to ſwim him. Let a fat horſe drinke oft, and a little at once, and a leane horſe whenſoever hee hath appetite. Much rubbing is comfortable, and cheereth every member. Be ſure to let your horſe eate graſſe once in a yeere, for that cooleth the blood, ſcoures away groſſe humors, and gives great ſtrength and nouriſhment to the body. If notwithſtanding all theſe principles, your horſe fall into ſickneſſe and diſeaſes, then looke into the Chapters following, and you ſhall finde the trueſt, beſt approved, and the moſt familiar medicines for all manner of infirmities, that ever were knowne or publiſhed, except my Maſter-piece.

Chap. 2.

Of riding in generall, and of all the particular knowledges belonging to the Art of riding of a great Horſe, or Horſe for ſervice or pleaſure.

HAving ſpoken ſomething already of horſes, it now followes wee ſay ſomething of the commendable exerciſe of riding of great horſes, which in the very action it ſelfe ſpeaketh Gentleman to all that are performers or doers of the ſame. And although our Engliſh Gentry from a ſloath in their induſtry, aime for the moſt part at no more skill than the riding of a ridden and perfect horſe, which is but onely the ſetting forth of another mans vertue, and thereby making themſelves richer in diſcourſe than action: yet our Engliſh Husbandman, or good-man, whom I ſeeke to make exact and perfect in

Imperfect uſe of this recreation.

all

all things, ſhall not onely recreate himſelfe by riding the horſes whom other men have made perfect, but ſhall by his owne practice bring his horſe from utter ignorance to the beſt skill that can be deſired in his motions, wherein hee ſhall finde a two-fold pleaſure, the one, an excellent contentment to his minde, that hee can performe ſo worthy an action, without the chargeable aſſiſtance of others: and the other a healthfull ſupport to his body, when by ſuch recreation his ſpirits and inward faculties are revived and inflamed. The pleaſure of Riding.

But now me thinkes I heare ſome ſay, that I have utterly taken away the tune of this ſtring, I have ſtricken ſo oft upon it, and that indeede there can be no delight where there is no variation: and that ſurely I cannot vary any more upon this plaine ſong, but the world will finde diſcord either in this, or my former deſcants. But let them not deceive themſelves, for my building ſtandeth on a firme rocke, and I know both ſhall be worthily juſtifiable: only this I muſt informe all men, that in times paſt, long ſince, when our firſt rules of Horſe-manſhip were given unto us, our Maſters were not ſo skilfull in the abilities of horſes performances as we are, but meaſured them by the proportions of their owne weaker natures, and thence became ſo too much tender over them, that they neither reſpected the greatneſſe of their owne labours, nor the length of time, before they aſſumed to their deſires, ſo in the end they might aſpire to their wiſhes with ſafety and full ſatisfaction: whence it came to paſſe that in thoſe times, and even now in theſe, (chiefly amongſt thoſe which are meerely riders, and no Keepers) there is no leſſe time allowed to the making up of a perfect horſe, than two yeeres, when we know, and my ſelfe from experience can juſtifie the ſame, that if the The Authors Apology.

Rider

Rider can keepe as well as Ride, that is, give as well directions for the preservation of a horses health, and the avoydance of *Sorrances* and sickneſſe, as put in practice artfully every violence to be uſed in his Leſſons, he may very well make up a perfect horſe in three moneths, fit either for pleaſure or battell, which is the full ſcope and end of this Treatiſe: wherein I would not have any man expect either new Rules, or a contradiction of any already ſet downe by men of practice and knowledge in the Art, but onely a ſtraighning or drawing them together into a much narrower compaſſe, giving ſatisfaction to our deſires, and finiſhing up our worke with ſpeede, which before was almoſt loſt or neglected, with the length of our Labours, as you ſhall fully perceive by this diſcourſe which followeth.

The taming of a young Colt.

First then to ſpeak of the taming of a yong colt, which is as it were the preface or introduction to the Art of Riding: you ſhall after he hath beene in the houſe a weeke, or a fortnight, and is familiar with the man, and will withall patiently indure currying, combing, rubbing, clawing, and handling in every part and member of his body, without any ſhew of rebellion or knaviſhneſſe, which you ſhall compaſſe by all gentle and eaſie meanes, doing nothing about him ſuddenly or raſhly, but with leiſure and moderation; then you ſhall offer him a Saddle, which you ſhall ſet in the manger before him, that he may ſmell to it, and looke upon it, and you ſhall gingle the girths & ſtirrops about his eares, to make him careleſſe of the noiſe, then with all gentleneſſe, after you have rub'd his ſides therewithall, you ſhall ſet it on his back, and gird it gently on, and then place his Crooper with all eaſe; which done, you ſhall take a ſweet watering trench, waſht, and annoynted with honey and ſalt,

His ſadling and bridling.

and

and put it into his mouth, placing it to hang directly above his tuſh, and as it were a little leaning thereupon: this you ſhall doe in the morning as ſoone as you have dreſt him, and then thus ſadled and bridled you ſhall leade him forth, and water him in your hand abroad: then bringing him in, and after hee hath ſtood a little reyned upon his trench an houre or more, take away the bridle and ſaddle, and let him goe to his meate till the evening: then lead him forth (as before) with the ſaddle to the water, then when he is ſet up, gently take off his ſaddle and cheriſh him, and then dreſſe him, and cloath him up for all night.

The next day ſaddle and bridle him as before ſaid, and put on him a ſtrong Muſrole of writhen Iron, or a ſharp Cavezan, and a Martingall, which you ſhall buckle at ſuch length that he may no more but feele it when he jerketh up his head, and then leade him forth into ſome new ploughed field, or ſoft ground, and there after you have made him trot a good ſpace about you in your hand, and thereby taken away from him all his wantonneſſe, and knaviſh diſtractions you ſhall offer your foote to the ſtirrop, at which if hee ſhew any diſtaſte, either in body or countenance, you ſhall then courſe him about againe: then offer againe, and with leiſure riſe halfe way up, and goe downe againe: at which if hee ſhrinke, correct him as before, but if hee take it patiently, then cheriſh him, and ſo mount into the ſaddle, which done, after cheriſhing, light downe againe, and give him bread or graſſe to eate: then looke that your girths be well girted, and ſtrait, that the crooper be ſtrong and of juſt length, that the bridle hang even, and in his due place without in ward or outward offence, that your ſtirrops be fit, and generally all things without offence, either to your

The firſt backing.

your ſelfe or to the beaſt, and then as before, mount his backe, ſeate your ſelfe juſt and even in the ſaddle, make the reynes of your bridle of equall length, carry your rod without offence to his eye, in your right hand, the point either directly upright, or thwarted towards your left ſhoulder: Then having cheriſht him, let the Groome which before led him, having his hand on the chaffe halter, leade him forward a dozen or twenty paces, then gently ſtraining your hand, with the helpe of the foote-man, make him ſtand ſtill, then cheriſh him, and leade him forward againe, and doe this five or ſixe times one after another, till by continuall uſe you make him of your owne accord (without the foot-mans helpe) by giving your body, and thruſting your legs forward, goe forward, which as ſoone as he doth, you ſhall ſtay him, and cheriſh him, and then ſitting on his backe, let your foot-man lead him home, and bring him to the blocke, where after you have cheriſht him, you ſhall gently alight, and cauſe him to be led up, and well dreſt, and meated. The next day you ſhall bring him out as before, and in all points take his backe as aforeſaid, and by the helpe of the foot-man trot him forth-right halfe a mile at leaſt, then let the foot-man lay off his hand, and walke by him, till you have of your ſelfe trotted him forth another halfe mile, then cheriſh him, and make the foot-man give him ſome graſſe or bread to eate, and then taking a large compaſſe, trot him home, and bring him to the blocke as before, and there alight, and ſo ſet him up.

The third day let your footman light upon ſome ſpare jade, and then bringing your colt to the blocke, take his backe gently, and after you have cheriſht him, the other riding before you, follow him forth-right a mile, ever and anone at the end of twenty or thirty ſcore, ſtopping

the

the colt gently, cheriſhing him, and making him yeeld and goe backe a ſtep or two, and then putting him forward againe, till he be ſo perfect, that with the leaſt motion he will goe forward, ſtop, and retire, which will be effected in two daies more: in which ſpace if he chance at any time to ſtrike or rebell, you ſhall make him which rides before you take the ſpare reyne, and leade him forward whileſt you give him two or three good laſhes under the belly, and then being in his way, take the ſpare reyne to your ſelfe againe: and thus you ſhall doe till all faults be amended: then you ſhall ſpare your horſeman or guide, and onely by your ſelfe for three or foure daies more, trot him every morning and afternoone, at leaſt a mile or two forward, uſing him onely to ſtop and retire, and bringing him home a contrary way to that you went forth, till he be ſo perfect and willing, that hee will take his way how or in what manner your ſelfe pleaſeth, ever obſerving to mount and diſmount at the blocke only, except ſome ſpeciall occaſion conſtraine you to the contrary. This you may very well bring to paſſe the firſt weeke of the Horſes riding.

The three main points of a Horſemans skill.

As ſoone as you ſee your horſe will receive you to his backe, trot forth-right, ſtop and retire, and doe all this with great patience and obedience, you ſhall then call into your minde the three maine points of a Horſemans knowledge, which are helpes, corrections, and cheriſhing: and for helpes, they conſiſt in theſe: Firſt the voyce which ſounding ſharply and cheerefully, as crying *Via*, *how*, *hey*, and ſuch like, adde a ſpirit and liveline ſſe to the horſe, and lend a great helpe to all his motions: then the bridle, which reſtrained or at liberty, helpes him how to goe, and ſhewes which way to goe:

Of helpes and which they be.

Then

then the Rod which being onely ſhewed, is a helpe to direct, being onely moved, helpes the quickneſſe, and nimbleneſſe of the motion; and being gently toucht withall, helpes the loftineſſe of a horſes ſalts and leaps, and makes him as it were gather all his ſtrength into one point: and laſtly, the calves of his legges, *Stirrop-leathers*, and *Stirrops*, which moved by the horſes ſide, helpes him to nimbleneſſe, ſwiftneſſe, and readineſſe in turning. Some to theſe helpes adde the helpe of the Spurre, chiefly in light ſalts or boundings, but it muſt be done in a juſt and true time, and with ſuch gentle bitterneſſe, that the horſe may underſtand it for a helpe, or helſe he will take diſtaſte, and finding it ſavour like correction, in ſtead of bettering his doings, doe with more diſorder, as to ſpraule with his fore-feet in advancing, to yerke out with one or both his hinder feet in the corvet or bounding, ſhaking of his head, and ſuch like, as will appeare in practice.

Of Corrections and which they be.

Now of Corrections the moſt principall is the Spur, which muſt not at any time be given triflingly, or itchingly, but ſoundly and ſharply, as oft as juſt occaſion ſhall require: then the Rod which upon diſorder, ſloth, or miſcarriage of the members, muſt be given alſo ſoundly: then the voice, which being delivered ſharply and roughly, as *ba villaine carrikro, diablo*, and ſuch like threatnings, terrifieth the horſe, and maketh him afraide to diſobey: and laſtly the bridle, which now and then ſtricken with a hard chocke in his mouth, reformeth many vices and diſtemperatures of his head; yet this laſt muſt be done ſeldome, and with great diſcretion, for to make a cuſtome thereof, is the ready way to ſpoile a horſes mouth.

Of cheriſhings.

Now of cheriſhings, there are generally in uſe but three,

three as first the voyce, which being delivered smoothly, and lovingly, as crying *hollo, so boy, there boy there*, and such like, gives the horse both a cherefulnesse of spirit, and a knowledge that he hath done well: then the hand, by clapping him gently on the necke or buttocke, or giving him grasse or other foode to eate after hee hath pleased you: and lastly, the big end of the rod, by rubbing him therewith upon the withers or maine, which is very pleasing and delightfull to the horse.

Now after these ordinary and actuall helpes, corrections, and cherishings, you shall have respect to the muscrole, or Cavezan, and martingale, which carry in them all the three former both severall and unite: for it is first an especiall help and guide to every wel-disposed horse, for setting of his head in a true place, forming of his eyne, and making him appeare comely and gallant in the eyes of the beholders; then it is a sharpe correction when a horse yerketh out his nose, or disordereth his head any way, or striveth to plunge or runne away with his Rider: And lastly, it is a great cherishing unto the beast, when he yeeldeth his head to your hand, by shrinking from his face, and so leaving any more to torment him, but when hee offendeth: whence it comes that more from this than any thing else, the Horse first gaineth the knowledge of his Masters will, and is desirous to performe it: therefore you shall be very carefull in the placing of this upon the horse, as first, that it hang somewhat low, and rest upon the tender Grissell of the horses nose, whereby the correction may be the sharper when occasion requires it; then that it be loose and not strait, whereby the horse may feele upon the yeelding in of his head, how the offence goeth from him, and so know that onely his owne disorder is

Of the Muscrole and Martingale.

his owne punishment. Lastly, he shall be carefull to note how hee winneth the horses head, and by those degrees to draw his Martingale straiter and straiter, so as the horse may ever have a gentle feeling of the same, and no more, till his head and reyne be brought to that perfection which you desire, and then there to stay, and keepe the Martingale constantly in that place onely which you shall performe in those few daies which you trot your horse forth-right, being before you bring him to any lesson, more than the knowledge of your selfe, and how to receive you to his backe, and trot forth obediently with you.

Of treading the large ring.

When your horse is brought unto some certainty of reyne, will trot forth-right with you at your pleasure, and by your former exercise therein is brought to breath and delight in his travell, which will grow and increase upon him, as you grow and increase in your labour, then you shall bring him to the treading forth of the large Rings in this manner: First, if he be of heavie and sluggish nature, slothfull and dull, and albeit hee have strength and sufficiency of body, yet if you find him slovenly and unapt, then you shall trot him into some new ploughed field, soft and deepe: but if he be of quicke and of fiery spirit, apt, nimble and ready to learne, then you shall trot him into some sandy or gavelly place, where is strong and firme foot-hold, and there you shall marke out a spacious large Ring at least threescore or fourescore paces in compasse, and having walk'd him six or seven times about the same on your right hand, you shall then by a little straining of your right reyne, and laying the calfe of your left legge to his side, make a halfe circle within your Ring upon your right hand, downe to the center or mid point thereof, and then by straining your left

Choyce of ground.

left reyne a little, and laying the calfe of your right legge to his side, make another halfe circle to your left hand, from the center to the outmost Verge, which two halfe circles contrary turned, will make a perfect Roman S. within the ring; then keeping your first large circumference, walke your horse about on your left hand, as oft as you did on your right, and then change within your ring as you did before to your right hand againe, and then trot him forth on the right hand, then on the left, so long as you shall thinke convenient. And although our antient Masters in this *Art* have prescribed unto us certaine numbers of ring-turnes, and how oft it is meete to goe about on either hand, as if all horses were of one even ability, yet I would wish you to neglect those rules, and onely to practice your horse in this lesson, according to his strength of body, sometimes applying him therein an houre, somtimes two, and sometimes three, more or lesse according to your discretion: for the space of time can neither bring wearinesse nor tiring: and for your change of hands, you shall doe it oft as shall seeme best to your selfe, being ever very carefull to give him the most exercise on that hand, on which he is ever most unwillingest to goe: and in this lesson be carefull also that hee doe it cheerefully, lustily and nimbly, quickning and inflaming his spirits by all the meanes possible: and when you find that he will trot his large rings perfectly, which will questionlesse be in lesse than a weeks space, being well applied therein, for you must not fore-slow any morning except the Sabbath, nay, hardly any after-noone: also if you find him slothfull and heavie, for there is no greater hindrance, than the riders too much tendernesse, nor no greater furtherance than a continuall moderate exercise: therefore as I said, when he will trot his rings well, then

in the ſame manner, and with the ſame changes, you ſhall make him gallop the ſame Rings, which he ſhall doe alſo with great dexterity, lightneſſe, and much nimbleneſſe, without loſing the leaſt part or grace of his beſt Reyne, nay ſo carefull you ſhall be thereof, that in his galloping, you ſhall, as it were, gather his body together, and make his Reyne rather better than it was, and make him take up his feet ſo truly and loftily, that not any eye may ſee or perceive a falſhood in his ſtroke, but that his inward feet play before his outward, and each of a ſide follow the other ſo directly, that his gallop may appeare as the beſt grace of all other motions: neither ſhall you enter him into his leſſon raſhly and haſtily, but ſoberly and with diſcretion, making him firſt gallop a quarter of the Ring then halfe, then three parts, and laſtly the whole Ring: neither ſhall you force him into his gallop with violence, or the ſharpneſſe of ſpurs, but with ſpirit and mettall, making him by the lightneſſe and cheerefulneſſe of your owne body, paſſe of his owne accord in his gallop, and eſpecially in his changes, where you may let him feele your leg, and ſhew him your rod on the contrary ſide: and herein is to be noted, that continually thoſe changes (in as much as they are made in a much ſtraiter compaſſe) muſt be done ever with great quickneſſe, and more ſtirring nimblenſſe than the intire leſſon.

Of galloping large rings.

Now for the helps neceſſary in theſe large ring-turnes, they conſiſt generally in the *Voyce*, *Rod*, *Calves* of your legs, and the *Bridle*: in the *voyce* by quickning him up, and reviving his ſpirits, when he growes ſlothfull, with theſe words, *How*, *hey*, or *vis*: In the *Rod*, by ſhewing it him on the contrary ſide, or laying it on the contrary ſhoulder, and ſometimes by ſhaking it over his head, (which is a kind of threatning) chiefely when you make

Helps in the large ring-turnes.

your changes. In the *calves of your legs*, when you clap them hard to the contrary side to which hee turneth, or by springing and jerking your legs forward, hard upon your stirrop-leathers, which will quicken him, and make him gather up his limbes better than the spur by many degrees: and lastly, in the *Bridle*, by drawing it in a little straiter, and holding it with some more constancy, when you put any of your former helpes in use, or doe any thing with more life or courage, for that maketh him draw his limbes together, and to straiten his rings with gracely comlinesse.

Corrections in the ring-turnes.

For the corrections in these large rings, they be divers; as namely, the *Bridle*, *the Spurre*, and the *Rod*, and sometimes the *voyce*, yet that but seldome: for the *bridle*, you shall correct your horse therewith if hee carry his head or chaps awry, making as it were mowes and ill-favoured countenances, giving him now and then a little checke in the mouth, and awakning him from such forgetfull passions, or now and then drawing the trench to and fro in his mouth, which will reforme the error; then the spur which must be laid sharpe and hard to his sides, when you finde your helpes will doe no good, but that his sloth rather more and more increaseth, or when hee presseth and hangeth hard upon your hand, or looseth the turch of his reyne, or such like vices: for the rod, when you finde that hee neglecteth the shewing or shaking of it, or when he disordeth any of his hinder parts, and will not gather them up comely together, then you shall therewith give him a sound lash or two under the belly, or over the contrary shoulder, and to any of these former corrections you shall ever accompany the threatning of your voyce, when the fault is too much foule, and no otherwise, because there should be ever an equitie betwixt

betwixt the horſe and the Horſe-man, which continuall chiding will either take away, or at leaſt roote out the apprehenſion thereof.

Cheriſhing in the Ring-turne.

Now for your cheriſhings, they are thoſe which I formerly ſpake of; onely they muſt be uſed at no time but when your horſe doth well, and hath pleaſed your mind, both with his cunning and tractableneſſe: and although the time for the ſame be when he hath finiſh'd his leſſons, yet there is a ſecret pleaſing and cheriſhing of a horſe with the bridle, which muſt be exerciſed in the doing of his leſſons, and that is the ſweetning of his mouth by a little ceaſing of your bridle hand, and gently drawing it up backe againe, letting it come and goe with ſuch an unperceiving motion, that none but the beaſt may know it.

Of ſtopping and going backe.

When your horſe can trot and gallop theſe large rings with all perfectneſſe, which with good induſtry will be perfected in leſſe than a fortnights exerciſe, you ſhall then proceede to make him ſtop faire, comely, and without danger, which you ſhall doe in this manner: Firſt, as ſoone as you have taken his backe, cheriſh him, put him gently forward, and bring him into a ſwift trot; after you have trotted him forty or threeſcore yards forward, you ſhall by drawing in your bridle-hand ſtraitly and ſuddenly, make him gather his hinder legs and fore-legs together, and ſo in an inſtant ſtand ſtill, which as ſoone as he doth, immediately, you ſhall eaſe your hand a little, yet not ſo much as may give him liberty to preſſe forward, but rather to yeeld backeward, which if you finde hee doth, you ſhall give him more liberty, and cheriſh him, and then having paſſed a while, draw in your bridle-hand, and make him goe backe two or three paces, at which if hee ſticke, inſtantly eaſe your hand, and draw it up againe, letting it come and goe till hee yeeld

and goe backeward, which (for the moſt part) all horſes at the firſt will doe: but if it be that your horſe rebell and will not goe backe with this gentle admonition, you ſhall then cauſe a foot-man ſtanding by to put him backe with his hand, and in his motion you ſhall cheriſh him, that he may underſtand what your will is: and thus every time you make him ſtop, you ſhall make him retire back, till in one ſpace of time you have made both leſſons perfect: and this practice you ſhall uſe both till you come to your large rings, and at every time that you finiſh your leſſon, or give the horſe breath or eaſe; whereby you ſhall perceive that your horſe ſhall learne to trot and gallop the large rings, to ſtop and retire backe all in one ſpace of time, becauſe you ſee ſucceſſively they follow one another, and are to be done (though three) but as one entire leſſon.

Now for the helpes in theſe leſſons, the beſt for ſtopping is the choice of ground, as by making your horſe ever to ſtop down the ſloape of ſome hill, or deſcending ground, whereby he may be compell'd to couch his hinder loines the better, and ſo make him ſtop moſt comely, and to obſerve that the ground be firme and hard, without danger of fliding, leſt the horſe finding ſuch an imperfection, grow fearefull, and ſo refuſe to doe your will out of his owne danger. In retiring you ſhall helpe him with your rod, by putting it before his breaſt, or ſhaking it before his knees, to make him remove his feete more quicke and nimbly. Helpes.

For corrections in ſtopping, it muſt ſometimes be done by your ſelfe, as with the even ſtroke of your ſpurs, when in his ſtop he diſordereth his head, or with any one ſingle ſpurre, when he caſteth out his hinder loines, and will not ſtop right in an even line; and ſometimes it Corrections.

muſt be done by another by-ſtander, where he refuſeth to ſtop at all, who ſtanding at the place of ſtop, as ſoone as you draw up your hand, ſhall with his rod threaten the horſe, and make him not dare to preſſe forward, or if he doe preſſe forward, to make him retire ſwiftly backe ſo much ground as he gained, both your ſelfe and the by-ſtander, rating him with your voices extremely: for corrections in retiring, they are the even ſtrokes of both your ſpurs, when hee ſtickes or preſſes upon you hand, and will not yeeld backe; and alſo your rod ſtrucke ſharply upon his knees and breaſts, and the rod of a by-ſtander ſtrucke upon his breaſt, knees and face, when his ſtubbornneſſe is too violent.

Cheriſhings. But for his cheriſhings, they be all formerly ſpoke of, when your will is comely and obediently performed, beſides the addition of ſome other, as a preſent eaſing of your bridle hand, and the chapping and cheriſhing of the by-ſtander, and ſo offering him to ſtand and recover breath a good ſpace after.

Of advancing before. When your horſe can ſtop and retire well, which may be done in the ſame ſpace that you teach him his large ring-turnes, for it is as it were three leſſons learn'd in one; you ſhall then teach him to advance before when hee ſtoppeth, which is very comely and graceſull to the beholders; and you ſhall doe it in this manner: After you have ſtopped your horſe, without giving your hand any eaſe, you ſhall lay the calves of both your legges hard to his ſides, and adde thereto the noiſe of the ſhaking of your rod, and your voyce, by crying *up, up*, which will at firſt (peradventure) but a little amaze him, becauſe hee underſtandeth not your meaning: Therefore you ſhall put him forward againe, and doe as before, and that with a little more ſtrength, continuing the practice of

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the same till you perceive he taketh one foote from the earth, then cherish him a little, and so to the lessons againe, till he taketh up both his legges from the ground, which when he doth orderly or disorderly, yet cherish him exceedingly, that he may come to the knowledge of your meaning without which all your labour is lost; then to your former practice againe, till you have brought him to that perfectnesse, that he will with all readinesse advance as oft as you will give him the calves of your legs to his sides, be it lesse or more times together: this done, you shall looke to the orderly and comelinesse of his advancing: as first, that he takes up his legs both even together, and wind them inwards towards his body; then that he advance not too high (for feare of comming over upon you): but couch his hinder loynes close to the ground; then that he sprauleth not, nor paweth with his feete forward: and lastly, that he advance not for his owne pleasure, but when you command him by your owne direct and orderly motions; for the contrary is a foule fault in Horsemanship.

Cherishing.

The rule of advancing.

For helps in this lesson, they are the calves of your legs, the shaking of your rod over his head, and your voyce, as is before said, and the descent of some hanging ground, which will make his hinder loynes couch the better. Helpes.

The Corrections are according to the nature of offences; as the even stroake of your Spurs, or a good lash with your rod, when you see hee fixeth his feete to the ground, and stubbornely applies himselfe to disobey you, or will take up his feete one after another, and not both together. If hee doe advance too high, so as he is ready to come over upon you, or if he spraule or pawe forth with his feete, you shall then not onely give him both your spurs hard together, but also a good jerke Corrections.

or

or two with your rod betweene his eares: but if he advance when you would not have him, you shall then in the same instant jerke him over both the knees with your rod; and if hee advance againe, jerke him againe, not ceasing till hee fixe his feete to the ground, or goe backeward, and then cherish him.

Cherishings. For particular cherishings in this Lesson, they are no other than those former spoke of, onely they must be done with a more ready watchfulnesse, in the very instant and moment of time, in which he performeth any thing well, that the Horse may understand why, and wherefore he receiveth such contentment, and thereby be incouraged to continue in his goodnesse, and be more ready to apprehend his Riders pleasure.

The use of advancing. For the use of advancing, it is two-fold: as namely, to give a grace to his other lessons, and to bring his body to nimblenesse: yet for the most part, it is onely used at the stop, where when you have finish'd any lesson, if then concluding with the stop, you make him advance, once, twice, or thrice, it will be both a grace to the Beast, and shew much art in the Horse-man; also it maketh a horse apt and ready to turne well, and maketh him trust to his hinder legges, whereby his fore-parts may be directed and governed at the Horse-mans pleasure.

Of yerking behinde. Next to advancing, you shall teach your Horse to yerke behinde, in this manner: When at any time you have made him stop, you shall presently with your rod give him a good jerke under the belly neere to his flanke, which though at the first hee apprehend not, yet by a continuall and constant use thereof, you shall in the end bring him to yerke out his hinder legs; at the first doing whereof, you shall cherish him, for that is the onely language by which he knowes he doth your will, and then having

aving paused a little, make him doe it againe, increasing
r every day, and doubling his doings, till he be so ready,
hat when you please to give the jerke, he will then give
he yerke, and then you shall looke to the comelinesse
of his doings, that is to say, that he yerke not out his hin-
der legs, till his fore-legs be above the ground, then that
he yerke not one leg further out than the other, but both
even together, then that hee yerke not too high, and
astly, that he yerke not one legge out whilest the other
s on the ground, all which are errors of great grossesse.
Therefore to make the horse more perfect in this lesson,
shall be good to teach him to yerke out behinde, when
hee standeth in the stable, by jerking him upon the but-
tockes with your rod, and not ceasing to molest him
till he raise his rumpe above the ground, and then to
cherish him, and so to apply him without any ease and
rest, till he doe your will; then when he is perfect to put
the same in practice when you are in the field on his
backe, by turning your rod in your hand to his but-
tocke-ward, and touching him therewith, to make him
yerke as aforesaid.

For the helpes, they are the constant staying his mouth on the bridle; the stroake of your rod under his belly, or the gentle touching him upon the rumpe with the same. Helpes.

The corrections are onely the even stroake of your Spurs, when either he refuseth to yerke, or yerketh out disorderly, and out of malice; or the single Spur on that side on which he yerketh out most disorderly: and lastly, a restlesse holding of him to the lesson, not giving him any rest or ease, till he doe it in that manner which you require. Corrections.

Then for his cherishings, they are all those formerly mentioned, Cherishings.

mentioned, being bestowed upon him in the very instant of his well-doing.

Of turning. When your horse is perfect in all the lessons formerly spoke of, and understandeth the helpes and corrections belonging to the same, you shall then teach him to turne readily on both hands, by straitning his large rings, and bringing them into a much lesse compasse: and although amongst Horse-men, and in the Art of Horsemanship, there are divers and sundry turnes, some high and lofty, as the turne upon the *corvet*, *Capriole*, or on bounds, some close and neere the ground, as the turne *Terra*, *Terra*, or these we call *Garegolo*, *Serpeggiare*, and such like, and some swift and flying, as the *Incavellare*, *Chambetta*, and such like: yet sith they all labour but to one end, which is to bring an horse to an exact swiftnesse and readinesse in turning, I will in as briefe and plaine manner as I can, shew you how to compasse the same. First, therefore you shall make out a ring some three or foure yards in compasse, and in the same with all gentlenesse a while walke your horse, suffering him to goe the same at his owne pleasure, gathering his head up by little and little, and making him take pleasure in the same, till you finde that he taketh knowledge of the Ring, and will with all willingnesse make about the same, coveting rather to straiten it, than enlarge it, which perceived, you shall then carry your bridle-hand constant and somewhat strait, yet the outmost reyne ever some what more strait than the inmost, making the horse rather look from the ring than into the ring, and the calve of your leg (as occasion shall serve) somewhat neere to the outward side of the horse, and then you shal trot him about the ring, first on the one side and then on the other, making your changes within that straite ring, as you did before within the large ring.

And

And in this ſort without ceaſing, you ſhall exerciſe your Horſe a full houre together, then ſtop him, make him advance twice or thrice together, then retire in an even line, and ſo ſtand ſtill a pretty while, and cheriſh him, then when hee hath taken freſh breath, to him againe, and doe as before, continually labouring by raying up your bridle-hand, and thurſting forward your legs and body, to bring his trot to all the ſwiftneſſe and ſhortneſſe that may be, and in your changes to do them ſo readily and roundly as may be, alſo making him to lap his outmoſt leg ſo much over his inmoſt leg, that he may over it more than a foot over, and thus you ſhall exerciſe him a whole forenoone, at leaſt a weeke together, only doing his former leſſons but once over in a morning, and no more, and in this practice you teach him perfectly three leſſons together, that is, the turne *Tarra, Tarra*, the *Incavalare*, and the *Chambetta*, the turne *Tarra, Tarra*, in the outmoſt circle of the ſtrait Ring, and the *Incavalare* and *Chambetta* in the changes, wherein he is forc't to lap one legge over another, or elſe to lift up the inmoſt leg from the ground whileſt he brings the outmoſt over it: and ſurely in this Ring, and theſe changes, conſiſteth all the maine Art of turning, and the chiefeſt glory both of the horſe and the Horſe-man; and therefore it is meet for every Rider to thinke this leſſon never perfectly learned, and therefore continually to practiſe his horſe in the ſame, making him not onely tread and trot theſe narrow rings but alſo gallop them, and from gallopping them, to paſſe them about in ground falts, as by taking up his fore-legs from the ground both together, and bringing his hinder feete in their place, and ſo paſſing the Ring about once, twice, or thrice, at your pleaſure, or as oft as the horſes ſtrength and courage will allow: and this is the

true

true turne called *Terra, Terra*, and of greateſt requeſt with horſe-men, and likewiſe with ſouldiers; and this will every horſe naturally and eaſily be brought unto, onely by a continuall trotting and gallopping of theſe narrow rings. Thus you ſee the perfectneſſe of your large rings brings your horſe to an eaſie uſe of the ſtrait rings, and the eaſie knowledge of the ſtrait rings brings a horſe to the perfection of turning, which is the ground and maine ſumme of this Art, as ſtopping begets retiring, and retiring advancing. Thus every leſſon as it were a chaine is linckt one to another.

Helpes. The helps belonging to turning, are all whatſoever are formerly ſpoken of, becauſe it is a leſſon which beſides that it containeth in it ſelfe all other leſſons, ſo it muſt be done with more courage, Art, and nimbleneſſe, than any elſe whatſoever, and therefore the horſe had neede of all the aſſiſtance that can poſſibly be given him.

Corrections. The corrections are the ſpurres given to the outmoſt ſide, when the horſe ſtickes, and is harder to come about on the one ſide, than on the other; and the rod ſtricken hard on the outmoſt ſide of the offending members, as alſo a continuall labour when the horſe ſhewes either unwillingneſſe or diſobedience: touching the unnimbleneſſe of his turning when hee beates one legge againſt another, or treads one foot upon another, the raps and hurts he doth himſelfe are ſufficient corruptions, and will both make him know his fault and amend it.

Cheriſhings. For his cheriſhings, they are alſo the former already ſpoken of, yet to be uſed (if poſſible) with greater earneſtneſſe, in as much as this leſſon being moſt cunning, would for the performance thereof ever receive the moſt comfort.

Your horſe being brought to this perfection, that hee

will

will perfectly tread his large rings, ſtop, retire, advance before, yerke behinde, and turne readily on either hand, you ſhall then take away his muſrole and trench, and in ſtead thereof put upon his head a gentle Cavezan of two joynts and three pieces, with a chap-band underneath, which you ſhall buckle cloſe, but not ſtrait, and be ſure that the Cavezan lie upon the tender griſſell of the horſes noſe, ſomewhat neere to the upper part of his noſtrills, then to the chap-band you ſhall faſten the Martingale, and laſtly, to the rings on each ſide the cavezan, you ſhall faſten long divided reynes, more than a yard and a halfe in length a piece, then into his mouth you ſhall put a ſweet ſmooth cannon bit, with a plaine watering chaine, the cheeke being of large ſize, ſo as it may arme a little above the point of his ſhoulder; and the kirble ſhall be thicke, round and large, hanging looſely upon his nether lip, and entiſing the horſe with his lip to play with the ſame. Thus armed, you ſhall take his backe, and caſting the left reyne of your cavezan over the horſes right ſhoulder, you ſhall beare it under your thumbe, with the reynes of the bit in your left hand; and the right reynes of the cavezan you ſhal caſt over the horſes left ſhoulder, and beare it with your rod in your right hand, and ſo trot him forth the firſt morning out-right a mile or two in the high way, making him onely feele and grow acquainted with the bit, and onely making him now and then ſtop and retire, and gathering up his head into a due place, and faſhioning his reyne with all the beauty and comelineſſe that may be, which done, the next day you ſhall bring him to his large rings, and as was before ſhewed, there make him perfect with the bit, as you did with the ſnaffle, firſt in trotting, then in galloping of the ſame, then make him ſtop, retire, advance, yerke behind,

and

and turne upon either hand, with a great deale more perfectneſſe, and more grace than was formerly done with the trench, which is an eaſie labour, in as much as the bit is of much better command, and brings more comelineſſe to the horſes motions, is alſo a greater help, a ſharper correction, and a cheriſher of more comfort than any before uſed. And thus in the firſt moneth you may make any horſe perfect upon the trene in the leſſons bfore ſpoken of, ſo in the ſecond month you may make the ſame leſſons a great deale more perfect upon the bit, and ſo preſume in two moneths to have a perfect ground horſe, fit either for Souldier or Scholer, that hath any good rules of Horſeman-ſhip in him.

Of turning Poſt.

Now for as much as the Art of turning in horſes is of great difficulty, and ought of all leſſons to be moſt elaborate, I will ſpeake a little further thereof, and ſhew you the practice of theſe preſent times, for the beſt accompliſhment of the ſame, without ſtirring up evill motions in the Horſe, whence Reſtiveneſſe and other vilde errours doe grow; for it is certaine that every horſe naturally deſireth neither offence, nor to offend; but the raſh diſcretion of ignorant Horſe-men, which will compell a horſe to doe, before he know what, or how to doe, is the begetting of thoſe evills which are hardly or never reclaimed: for a horſe is like an ill brought up boy, who having learnt drunkenneſſe in his youth, will hardly be ſober in his age, and having once got a knaviſh quality, though hee be never ſo much puniſhed for the ſame, will yet now and then ſhew that the remembrance is not utterly exſtinguiſhed: and for as much as in this leſſon of ſtrait turnes, there is ſo much curious hardneſſe, that a horſe is moſt ſubject to rebell, and learne many evills thereby, therefore to prevent all thoſe evills, you

ſhall

ſhall cauſe a ſmooth ſtrong poſt to be well tamm'd & fixed in the earth in the midſt of the ſtrait ring, at the very point and center thereof; then cauſing a foot-man to ſtand at the poſt, you ſhall give him the right Reine of your cavezan, which you ſhal make him hold about the poſt, and ſo walke or trot your horſe about the ſame, on your right hand as long as you pleaſe; then taking up the right Reine, give him the left Reine, and do as much upon the left hand, and thus change from hand to hand, as oft as you ſhall think convenient, till you have brought your horſe to the abſolute perfectiō of every turne, the poſt being ſuch a guide and bond unto the Horſe, that albeit the horſe-men were of himſelfe utterly ignorant, yet it is impoſſible the horſe ſhould either diſorder or diſobey his Riders purpoſe.

When your Horſe can thus perfectly for every ſeverall turne, either ſtraight or open with his bit, you ſhall then teach him to manage, which is the only poſture for the uſe of the ſword on horſe-back; and you ſhall doe it in this manner: Firſt, cauſe ſome by-ſtander to pricke up in the earth two riding Rods, about twenty or forty yards or more, as you thinke good, diſtant one from the other; then walke your horſe in a ſtraight turne or Ring about, the firſt on your right hand, and ſo paſſing him in an even furrow downe to the other Rod, walke about it alſo in a narrow Ring on your left hand, then thruſt him into a gentle gallop downe the even furrow, till you come to the firſt Rod, and there making him, as it were, ſtop & advance without any pauſe or intermiſſion of time, thruſt him forward againe, and beate the turne *Terra*, *Terra*, about it on your right hand, then gallop forth right to the other Rod, and in the ſame manner beate the turne about on your left hand: and thus doe as

Of managing.

and turne upon either hand, with a great deale more perfectneſſe, and more grace than was formerly done with the trench, which is an eaſie labour, in as much as the bit is of much better command, and brings more comelineſſe to the horſes motions, is alſo a greater help, a ſharper correction, and a cheriſher of more comfort than any before uſed. And thus in the firſt moneth you may make any horſe perfect upon the trene in the leſſons bfore ſpoken of, ſo in the ſecond month you may make the ſame leſſons a great deale more perfect upon the bit, and ſo preſume in two moneths to have a perfect ground horſe, fit either for Souldier or Scholer, that hath any good rules of Horſeman-ſhip in him.

Of turning Poſt.

Now for as much as the Art of turning in horſes is of great difficulty, and ought of all leſſons to be moſt elaborate, I will ſpeake a little further thereof, and ſhew you the practice of theſe preſent times, for the beſt accompliſhment of the ſame, without ſtirring up evill motions in the Horſe, whence Reſtiveneſſe and other vilde errours doe grow; for it is certaine that every horſe naturally deſireth neither offence, nor to offend; but the raſh diſcretion of ignorant Horſe-men, which will compell a horſe to doe, before he know what, or how to doe, is the begetting of thoſe evills which are hardly or never reclaimed: for a horſe is like an ill brought up boy, who having learnt drunkenneſſe in his youth, will hardly be ſober in his age, and having once got a knaviſh quality, though hee be never ſo much puniſhed for the ſame, will yet now and then ſhew that the remembrance is not utterly exſtinguiſhed: and for as much as in this leſſon of ſtrait turnes, there is ſo much curious hardneſſe, that a horſe is moſt ſubject to rebell, and learne many evills thereby, therefore to prevent all thoſe evills, you

ſhall

shall cause a smooth strong post to be well ramm'd & fixed in the earth in the midst of the strait ring, at the very point and center thereof; then causing a foot-man to stand at the post, you shall give him the right Reine of your cavezan, which you shall make him hold about the post, and so walke or trot your horse about the same, on your right hand as long as you please; then taking up the right Reine, give him the left Reine, and do as much upon the left hand, and thus change from hand to hand, as oft as you shall think convenient, till you have brought your horse to the absolute perfection of every turne, the post being such a guide and bond unto the Horse, that albeit the horse-men were of himselfe utterly ignorant, yet it is impossible the horse should either disorder or disobey his Riders purpose.

When your Horse can thus perfectly for every severall turne, either straight or open with his bit, you shall then teach him to manage, which is the only posture for the use of the sword on horse-backe, and you shall doe it in this manner: First, cause some by-stander to pricke up in the earth two riding Rods, about twenty or forty yards or more, as you thinke good, distant one from the other; then walke your horse in a straight turne or Ring about, the first on your right hand, and so passing him in an even furrow downe to the other Rod, walke about it also in a narrow Ring on your left hand, then thrust him into a gentle gallop downe the even furrow, till you come to the first Rod, and there making him, as it were, stop & advance without any pause or intermission of time, thrust him forward againe, and beate the turne *Terra*, *Terra*, about it on your right hand, then gallop forth right to the other Rod, and in the same manner beate the turne about on your left hand: and thus doe as

Of managing.

oft as you ſhall think it convenient for your owne practice, and the horſes ſtrength.

Diverſities of manages.

Now of theſe manages our ancient maſters in horſmanſhip have made divers kinds, as manage with reſt, and manage without reſt; manage with ſingle turnes, and manage with double turnes, which indeed doth rather breed confuſion, than underſtanding in eyther the horſe or horſ-man: therfore for your better knowledge I will reduce them onely but to two kinds: that is manage open and manage cloſe: your open manage is that which I ſhewed you before, when you turne *Terra, Terra*, which is the moſt open of all ſtrait turns: and your cloſe manage is when you turne upon the *incavalare*, or *chambetta*, which are the cloſeſt of all turns, & may be done as before I ſhewed, in a flying manner, even upon one foot, which although it be artfull, yet it is not ſo glorious and ſafe for the Souldiers practiſe, onely this you may be moſt aſſured of, that when a horſe can manage upon both theſe turnes, he may manage without more inſtruction, upon any other turne whatſoever.

Of the carera.

When your horſe is perfect in the manages beforeſaid, you may then paſſe a *carere* at your pleaſure, which is to run your horſe forth-right at his full ſpeed, & then making him ſtop quickely, ſuddenly, firme, & cloſe on his buttock: in which leſſon there needeth little inſtruction, but only ſome few obſervations, as firſt, that you make not your *carere* too long, whereby the horſe may be weakned, nor too ſhort, whereby his true wind and courage may be undiſcovered, but competent and indifferent, as about 4 or 5 ſcore yards at the moſt: then that you ſtart him gently without affright: and laſtly, that you firſt give him a little warning with your bridle hand, and then ſtop him firmely and ſtrongly; which

place

place of ſtop, if it be a little bending downward, it is a great deale the better. And thus in theſe leſſons already ſhewed you, conſiſteth all the full perfection of a horſe for ſervice in the warres, which any painefull man may bring his horſe well unto in leſſe then three moneths, how ever our ancients in former times have been blinded, and in the ſame practiſe, have waſted two yeeres ere they brought it to perfection.

Horſes for pleaſure.

Now forasmuch as to the Art of riding belongeth divers other ſalts and leaps, right pleaſant and curious to behold, and though not generally uſed in the wars, yet not utterly uſeleſſe for the ſame, and ſith they are many times very needfull for the health of mans body, I will by no meanes abridge our Engliſh husbandman of the ſame, but proceed to the leſſons which are meet for horſes of pleaſure, of which the firſt is to make a horſe bound aloft with all his foure feete from the ground; and you ſhall doe it in this manner: when you have trotted your horſe forth-right a dozen or twenty yards, you ſhall ſtop him, and when he hath advanced once or twice, you ſhall a litle ſtraiten your bridle-hand, and then give him the even ſtroke of both your ſpurs together hard, which at firſt will but onely quicken and amaze him, but doing it againe and againe, it will breed other thoughts in him, and he being of ſpirit and mettall (as it is loſt labour to offer to teach a jade ſuch motions) hee will preſently gather up his body, and either riſe little or much from the ground, then preſently cheriſh him, and after ſome reſt, offer him the like againe, and thus doe till you have made him bound twice or thrice: then make much of him, and doe no more for that day: the next day renue his Leſſon againe, and double his exerciſe, increaſing ſo day by day, till hee come to that perfectneſſe,

Of bounding aloft.

that he will bound whensoever your Spurs shall command him.

Of the Corvet. When your horse can bound perfectly, then you shall teach him the corvet, in this manner: you shall at the corner where two walls joyne together, a little hollow the ground a Horses length or more, and then place a smooth strong post by the side of the hollownesse a horses length likewise from the wall; then over against the post fasten an yron Ring in the wall; this done, ride your horse into the hollow place, and fasten one of the reines of the cavezan unto the Ring, & the other about the post, then after you have cherish your horse, make him advance, by the helpe of the calves of your legges onely twice or thrice together; then let him stand still, and cherish him, then make him to advance againe at least a dozen times together, then rest, and after advance twenty or forty times together, daily increasing his advancings as he growes perfect therein, till you perceive that he hath got such a habit therein that he wil by no means presse forward, but keeping his ground certaine, advance both before and behind of an equall height, and keepe one just and certaine time with the motion of your legs, neither doing slower nor faster, but all after one manner and leisure: but if you find that he doth not raise his hinder parts high enough, then you shall cause a foote-man to stand by you, and as you make him advance before, so the foote-man by jerking him gently upon the hinder fillets with his rod, to raise up his hinder parts: also this will bring your horse in few daies to a perfect and brave corvet, so that after you may doe it in any place where you please, without the helpe either of your wall or post, or other by-stander.

Of the gallop Galliard. When your Horse is made perfect in the corvet, and

that

that he will doe it readily and comely, you shall at the end of every third or fourth advancing, give him the stroake of your spurs, and make him bound aloft; then put him to his corvet againe as before, and then make him bound againe; and thus at the end of every third advancing see you make him bound for the length of a tilt bar, or an ordinary managing furrow, according to the horses strength: and this is called the *gallop galliard*, which if it be taught a horse along by the side of some wall or smooth pale, it is so much the better, and a great deale fewer disorders will arise and trouble the Rider.

The next Lesson you shall teach your horse after the gallop galliard, is the *capriolle* or Goates leape, which is the same maner of motion which the corvet is, only it is to be done forward, & much ground gained in the salt, & the horse is to raise his hinder parts as high or rather higher then his fore-parts, and to keepe rather a swifter then slower time in doing of it; therfore when you teach your horse to doe it, you shall bring him into some hollow furrow, where the ground is a little descending, & turning his head to the descent, put him into the corvet temperate and gently; then when you give him the calves of your leggs to raise vp his fore-parts, in the same instant ierke your leg violently forward againe, that he may not sticke, but carry his hinder legges after his fore-legges, and let some skilfull foot-man standing by your side ierk the horse over the fillets with his Rod, & make him raise vp his hinder-parts: and thus do without ceasing, til hee performe your will nimbly and cunningly, and then forget not to cherish him & give him al comfort possible. And this lesson & the other which consist of violent and quicke salts or leapes, would ever be practised the first in the morning whileſt a horse is fresh & lusty,

Of the Capriolle.

lusty, for to put him to them after his fire edge is taken away, will but bring him to a loathing of his instruction, or at the best to doe them but slovenly, heavily, and vnwillingly.

Of going side. There is also another motion which is pleasing to the eye, though it bee very labourſome to the body, which is to make a horſe goe side-long of which hand ſoever the rider is diſpoſed, and is very neceſſary in the wars, becauſe it is the avoyding of any blow comming from the enemy. This motion when you intend to teach your Horſe, you ſhall draw vp your bridle-hand ſomewhat ſtrait, and if you determine to have him goe a ſide to your right hand, lay your left reine cloſe to his necke, and the calve of your left legge cloſe to his ſide, and as you did in the *Incaualare*, make him lap or put his left legge over his right, then turning your rod backeward, and ierking him gently on the left hinder thigh, make him bring his hinder parts to the right ſide alſo, and ſtand in an even line as at the firſt, then make him remoove his fore-parts more then before, ſo that he may ſtand as it were croſſe over the even line, and then make him bring his hinder parts after, and ſtand in an even line againe: and thus doe till by long practiſe hee will move his fore-parts and hinder parts both together, and goe ſide-long as far as you pleaſe, then cheriſh him: And if you will have him goe towards your left hand, doe as you did before, vſing all your *helpes* and *corrections* on the right ſide onely. And this much I thinke is ſufficient to have ſpoke touching all the ſeverall leſſons meet to be taught to any horſe whatſoever, whether he be for ſervice or for pleaſure, and which being performed artfully, carefully, and with patience, you may preſume your horſe is compleat and perfect, the rather ſith

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no man can find out any invention, or teach any other motions to a horse, which may be good and comely, but you shall easily perceive, that they are Received from some one of these already Rehearsed.

Now if you shal be called to Ride before a *Prince*, you must not obserue the liberty of your owne will, but the state of the *person* before whom you Rid, and the grace of the horse which you Ride: and therefore being come into the Riding place, you shall chuse your ground, so that the *person* before whom you are to Ride may stand in the midst thereof, so as he may wel behold both the passage of the horse to him and from him: then being seated in a comely *order*, and every ornament about you handsome and decent, you shall put your horse gently forth into a comely trot, and being come against the *person* of estate, bow your body downe to the *crest* of your horse, then raising your selfe againe, passe halfe a score yards beyond him, and there marking out a *narrow ring*, thrust your horse into a gentle gallop, and give him two or three managing turnes in as short ground as may be, to shew his nimblenesse and Readinesse: then vpon the last turne, his face being towards the *great person*, stop him comely and close, and make him to advance twice or thrice; then having taken breath, put him into a *gallop galliard*, and so passe along the length of the even *furrow* with that salt, making him do it also round about the *ring*: then his face being towards the prince, stop him and give him fresh breath, then thrust him into the *Capriole*, now and then making him yerke out behind, yet so as it may be perceived it is your will, and not the horses malice: and having gone about the ring with that salt, and his face brought to looke vpon the *Prince*, stop him againe and give him breath: Then drawing neerer

Riding before a Prince

Of the Carragolo.

to the Prince, you shall beat the turne *Terre, Terre*, first in a pretty large compasse, then by small degrees straitning it a little and a little, draw it to the very center where you may give two or three close flying turnes, and then changing your hands, undoe all that you did before, til you come to the Ring: first largenesse; then the horses face being direct vpon the Prince, stop him, and put him into a corver, and in that motion hold him a pretty space, making him doe it first in an even line, first to the right hand, then to the left, now backward, then forward againe: and thus having performed every motion orderly and comely, bowe downe your body to the Prince, and so depart.

To ride for Recreation.

But if you intend to Ride onely for Recreation, then you shall marke what Lesson your horse is most imperfect in, and with that lesson you shal ever when you ride both beginne and end; after it you shal fal to those Lessons which are to your selfe most difficult, and by the practice of them bring your selfe to a perfectnesse, then consequently to all other Lessons, repeating (as it were) every one over more or lesse, lest want of use breed forgetfulnesse, and forgetfulnesse vtter ignorance: but if your recreation in riding be tied to any special rules of health, and that your practice therein proceede more from the commandement of your Physician then your pleasure, then I would wish you in the morning first to begin with a stirring or rough lesson, as the *gallop gallyard*, *bounding*, or such like, which having a little stirred your blood, and made it warme, you shall then calme it againe with a gentle manage, or the galloping of large Rings: then to stirre your spirits againe, to bring the stone downe, or procure appetite, passe into the *capriole* or *corvet*; and then to make quiet those moved parts,

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set the turne called *Terra, Terra*, the *incanalare*, and such like. And thus one while stirring your blood, & another while moderately allaying such stirring, you shall give your body that due & proper exercise which is most fit for health and long life. Many other wayes this Recreation may be vsed for the good of a mans body, which because particular infirmities must give particular rules how and when to vse it, I wil at this time speake no further thereof, but refer the exercise to their owne pleasures which shal practice the same, and to the good they shall finde in the practice.

Chap. 3.

Of the breeding of all sorts of Horses fit for the Husbandmans vse.

THe mindes of men being swaied with many various motions take delight sometimes to be recreated rather with contemplative delights, then with active pleasures; and there is strong Reason therefore, because disability of body, or affaires of the Kingdome or Common-wealth, may take a man from those pre-occupations, which otherwise might stir him to more laborious exercise: and of these contemplative Recreations, I can prefer none before that Gentlemanly and beneficial delight of breeding creatures meet for the vse of man, and the good of the common-wealth wherin he liveth, and of these breedings I cannot esteeme any so excellent, as the breeding of Horses, both for the pleasure we gaine thereby in our owne particular service, and also for the strength, defence, and tillage of the kingdome.

The breeding of Horses.

He therfore that suteth his recreation to the breeding of horses, must first have respect unto the ground wher on he liveth or enioyeth; for every ground is not meet

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to breed on, but ſome too good, ſome too bad: ſome too good, becauſe they may be exhauſted to a more beneficial commodity, horſes having a world of caſualties attending on them, and many yeares before the true profit doth ariſe; and ſome too bad, becauſe the extreame barrenneſſe of the ſame will deny competent nouriſhment to the thing bred, and ſo to the loſſe of time and profit adde mortality.

Grounds to breed on.

The ground, then meete to breede horſes on, would neyther be extreame fruitfull, nor extreame barren, but of an indifferent mixture, yeelding rather a ſhort ſweete burthen, then a long, rich and fruitfull; it would rather lie high then low, but howſoever firme and hard vnder the foote; it would be full of Mole-hils, vneven treadings, hils, and much craggineſſe, to bring colts to nimbleneſſe of foote; it would have good ſtore of freſh waters, an open ſharpe ayre, and ſome convenient covert; and this ground is beſt if it be ſeverall and incloſed, yet may be bred vpon though it be open and in common, onely ſome more carefulneſſe to bee looked for, a little before, and in the time of Foaling. Nay, the grounds which are neyther ſeverall nor common, are very good alſo to breed on, and thoſe be your teathering grounds, which we call particular grounds; for though they bee proper commonly to one man, yet they are not divided nor eaten otherwiſe then at the owners pleaſure: And theſe teathering grounds are as good as any grounds for the firſt nouriſhing of a foale, if they be amongſt corne grounds, or any graine except peaſe onely.

Diviſion of grounds

If you have much ground to breed on, you ſhall divide it into many paſtures, the leaſt and barrenneſt for your Stallion to Run with your Mares in, thoſe which have leaſt danger of waters are for your mares to foale in

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the fruitfulleſt & of beſt growth for your mares to give milk in, and the moſt ſpacious and vnevenneſt to bring vp your Colts in after they are weaned.

For the choyce of a good Stallion, and which is beſt for our Kingdome, opinion ſwayeth ſo far, that a man can hardly give well-received Directions: yet ſurely if men wil be ruled by the truth of experience, the beſt Stallion to beget horſes for the wars in the *Courſer*, the *Ienuet* or the *Turkes*; the beſt for courſing and running is the *Barbary*; the beſt for hunting is the *Baſtard courſer*, begot of the *Engliſh*; the beſt for the Coach is the *Flemmiſh*, the beſt for travaile or burthen is the *Engliſh*, and the beſt for eaſe is the *Iriſh-hobby*. Choice of ſtallion, and which are beſt.

For the choyce of *Mares* you ſhal greatly reſpect their ſhapes and mettals, eſpecially that they be beautifully fore-handed, for they give much goodneſſe to their Foales: and for their kinds, any of the *Races* before ſpoken of is very good, or any of them mixt with our true Engliſh *Races*, as *Baſtard-courſer Mare*, *Baſtard-Ienuet*, *Baſtard-Turke*, *Barbary*, *&c.* Choyce of Mares.

The beſt time to put your Stallion & Mares together, is in the middle of *March*, if you have any Graſſe, as you ſhould have great care for that purpoſe, and one foale falling in *March*, is worth two falling in *May*, becauſe he poſſeſſeth, as it were, two winters in a yeare, and is therby ſo hardned, that nothing can (almoſt) after impaire him, and the beſt time to take your horſe from the Mares againe, is at the end of *April* or middle of *May*, in which you ſhal note, that from the middle of *March*, till the midſt of *May*, you may at any time put your ſtallions to your Mares, and a months continuance is ever ſufficient: provided ever, as neere as you can, that you put them together in the increaſe of the Moone; for Foales When to put them together.

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got in the wane are not accounted ſtrong or healthfull.

Of covering Mares.

For covering of Mares, it is to be done two waies, out of hand, or in hand; out of hand, as when the Horſe and Mares run together abroad, as is before ſaid, or turned looſe into ſome empty barne for three nights one after another, which is the ſureſt and the ſafeſt way for a Mares holding; or in hand, early in a morning, & late at an evening two or three daies together, when you bring the Horſe to the Mare, and make him cover her once or twice at a time, holding him faſt in your hand, and when the act is done, lead him backe to the ſtable; and in this act you ſhall ever obſerve, as ſoone as the Horſe commeth from her back, preſently to caſt a paile of cold water on her hinder parts; or elſe to chaſe her ſwiftly up and downe, for feare by ſtanding ſtill ſhe caſt out the ſeed, which is very ordinary.

To know if a Mare holds.

To know whether your Mare hold to the horſe or no there be diverſe wayes, of which the beſt is by offering her the Horſe againe at the next increaſe of the Moone, which if ſhe willingly receive, it is a ſigne ſhe held not before; but if ſhe refuſe, then it is moſt certaine ſhe is ſped: or if you poure a ſpoonefull of cold vinegar into her eare, if ſhe ſhake onely her head, it is a ſigne ſhee holds, but if ſhe ſhake head, body and all, then truly it is a ſigne that ſhe doth not hold: Laſtly, if after ſhe is covered you ſee her ſcoure, her coat grow ſmooth and ſhining, and that ſhe doth (as it were) renue and increaſe in liking, then it is a ſigne ſhe holds: but if ſhe hold at a ſtay without any amendment, then offer the Horſe againe, for ſhe is not ſerved.

To conceive Male-foales.

To make your Mares conceive moſt male foales, you ſhall be ſure to keepe your Stallion proud, and your Mare poore, that his luſt maſtering hers, he may onely

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be predominant and chiefe in the actions: many other rules fancie deviseth, but they erre in their ends, and I would by no meanes have this discourse capable of any uncertainety.

If you have any advantage given you by friendship, or otherwise, wherby you may have a Mare at the present very well covered, only yours is not yet ready for the horse, you shall in this case to provoke lust in her, give her to drinke good store of clarified honey and new milke mixt together, and then with a bush of nettles all to nettle her privy parts, and then immediately offer her the horse. To provoke lust.

To keepe your Mares from barrennesse, and to make them ever apt to conceive foales; you shall by no meanes feed them too extreame fat, but keep them in a middle state of body, by moderate labour, for the leaner they are when they come to take horse, the much better they will conceive. To keepe Mares from barrennesse.

After your Mares have beene covered, and that you perceive in them the markes of conceiving; you shall let them rest three weekes or a moneth, that the substance may knit; then after moderately labour or travell them, till you see them spring, and then turne them abroad, and let them runne till they foale; for to house them after is dangerous and unwholesome. Ordering Mares after couering.

If your Mare be hard of foaling, or will not cleanse after she hath foaled, you shall take a pint of running water, wherein good store of Fennell hath beene boyled, and as much strong, old, sweet wine, with a fourth part of the best Sallet-oyle, and having mixt them well together, being but luke-warme, poure it into her nostrils, and then hold and stop them close, that she may straine her whole body, and it will presently give her ease. A helpe for Mares after foaling.

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Ordering Mares after foaling

As ſoone as your Mare hath fol'd, you ſhall remove her into the beſt graſſe you have, which is freſh and unſoiled, to make her milke ſpring; & if it be early in the yeere, you ſhall have care that there be good ſhelter in the ſame, and there let her nourish her foale moſt part of the ſummer following.

Weaning of foales.

As touching the weaning of foales, though ſome uſe to weane them at *Michaelmas*, or *Martilmas* followings out of a ſuppoſition that the winter milke is not good or wholeſome, yet they are much deceived; and if you can by any convenient meanes (ſaving greater loſſes) let your foales run with their Dams the whole yeere, even till they foale againe; for it will keepe the foale better in health, in more luſt, and leſſe ſubject to tenderneſſe.

Ordering after the weaning.

When you intend to weane your foales, you ſhall take them from their Dams over-night, & drive them into ſome empty houſe, where they may reſt, and the Mares be free from their noyſes: then on the morning following give to every foale faſting a branch or two of *Saven* annointed or rold in butter, & then having faſted two houres after, give him a little meate, as graſſe, hay, or garbadge of Corne, with ſome cleare water, & do thus three daies together; then ſeeing that they have forgotten their Dams, geld ſuch colt-foales as you intend to make geldings of; and after their ſwellings are paſt, put them with your other colt-foales into a *paſture* provided for them by themſelves, and your fille-foales into another by themſelves: which *paſtures* may either be high Woods, Commons, or ſuch like ſpacious peeces of ground, where they may run till they bee ready for the Saddle.

Gelding of Colts.

Now, albeit I proportion unto you this manner of gelding of Foales, yet I would have you know that the

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beſt and ſafeſt way to geld them is, if it may be, under the Damme when they ſucke, as at nine or at fifteene daies of age, if the ſtones appeare; or elſe ſo ſoone as you can by any meanes perceive them fall downe into the cod, for then there will be no danger of ſwelling, or other miſchiefes, which commonly attend the action. And thus much touching the breeding of horſes, and the obſervations due to the ſame, through all the courſes and paſſages thereof, as hath beene found by ancient practiſe and experience, as appeares in my Maſterpiece.

CHAP. 4.

Of horſes for travell, and how to make them amble.

THe Husbandman, whoſe occupation is the generall affaires of the Common-wealth, as ſome to the markets, ſome to the City, & ſome to the Seates of Juſtice, muſt neceſſarily be imployed almoſt in continuall travell: and therefore it is meet that he be provided ever of a good and eaſie travelling horſe.

The markes whereby he ſhall chooſe a good travelling horſe, are theſe; hee ſhall be of good colour and ſhape, leane headed, and round foreheaded, a full eye, open noſtrill, wide jawed, looſe thropled, deep neckt, thinne creſted, broad breaſt, flat chin'd, out rib'd, cleane limb'd, ſhort joynted, ſtrong hooved, well mettald, neither fiery, nor craving, ſtrong in every member, and eaſie to mount and get up upon; he ſhall follow without haling, and ſtand ſtill when hee is reſtrained. The markes of a good travelling-horſe.

Now foraſmuch as there are a world of good horſes, which are not eaſie, and a world of eaſie horſes which are not good, you ſhall by theſe directions following make any horſe amble whatſoever: firſt then you ſhal underſtand that practiſe hath made divers men believe To make a horſe amble.

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Divers waies of ambling.

that diverſe waies they can make a horſe amble, as by gagging them in the mouthes, by toyling them in deep earth, by the helpe of ſhooes, by gallopping & tyring, or ſuch like, all which are ill & imperfect; yet the truth is, there is but one certaine and true way to compaſſe it, and that is to make a ſtrong garth webbe, flat and well quilted with cotten, foure paſternes for the ſmals of his fore-legs, under his knees, and for the ſmals of his hinder legs ſomewhat below the ſpavin-joynts: to theſe paſternes you ſhall fixe ſtrong ſtraps of leather, with good yron buckles, to make ſhorter or longer at pleaſure; and having plac't them about his foure legs, you ſhall take two ſeverall round ropes, of an eaſie twiſt, made with ſtrong loopes at either end, and not above eight handfuls in length; and theſe the horſe ſtanding to a true proportion, you ſhall faſten to the 4 ſtraps of leather; to wit, one of them to his neere fore-leg and his neere hinder-leg, and the other to his farre fore-leg and his farre-hinder-legge, which is cald amongſt Horſe-men trammeling: with theſe you ſhall let him walke in ſome incloſed piece of ground, till he can ſo perfectly goe in the ſame, that when at any time you offer to chaſe him, you may ſee him amble truely and ſwiftly; then you ſhall take his backe, and ride him with the ſame trammels, at leaſt three or foure times a day, till you finde that he is ſo perfect, that no way can be ſo rough and uneven, as to compell him to alter his ſtroke or go unnimbly. This done, you may firſt take away one trammell, then after the other, and roll your wreath about under his foure fet-locks thick and heavie great roles of hay or ſtraw-ropes, and ſo ride him with the ſame a good ſpace after, for it will make him amble eaſie; then cut them away, and ride and exerciſe him without any thing but the ordinary

Of trammels for his legs.

Of wiſping.

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helpe of the bridles, and there is no doubt but hee will keepe his pace, to your full contentment and pleasure.

Now during this time of your teaching, if your horse strike not a large stroke and over-reach enough, then you shall make the trammell the straiter, but if he over-reach too much, then you shall give it more liberty: and herein you shall finde that an inch straitning, or an inch inlarging, will adde or abate at least halfe a foote, an whole foote and direct stroke. And thus much touching the teaching of any horse to amble, of what nature or quality soever he be, or how unapt or untoward soever to learne.

CHAP. V.

Of the ordering and dieting of the hunting horse.

SOme love hunting for the exercise of their owne bodies, some for the chase they hunt, some for the running of the hounds, and some for the training of their horses, whereby they may finde the excellency of their goodnesse and indurance: to him therefore which placeth his delight in the goodnesse of his horse, I would wish him thus to order and diet him, and hee shall most assuredly come to the true knowledge of the best worth which is within him; and if in these rules which I now shew, I be lesse curious then formerly I have beene, let no man wonder thereat, but know that *Time* (which is the mother of experience) doth in our labours shew us more new and more neere wayes to our ends, then at the first we conceived: And though when I first practised this Art, I knew not how to bring a very fat horse from *Michaelmas* till *Christmas* to shew his utmost perfection, I know now in two moneths (though never so foule)

how to make him fit for any wager, daring now boldly to adventure on that, with which before I thought almost present death to offer: thus doth observation and labour finde out the darkest secrets in Art.

Taking up of the hunting Horse.

To beginne then with the first ordering of a hunting horse, you shall know that the best time to take him from grasse is about *Bartholomew-tide*, the day being faire, dry and pleasant; and assoone as hee is taken up, to let him stand all that night in any vast house, to empty his body; the next day stable him, and give him wheat straw if you please, but no longer in any wise; for though the old Rule is to take up horses bellies with straw, yet it straiteneth the guts, heats the liver, and hurteth the wind: therfore let onely moderate exercise, as riding him forth to water morning and evening, and other airings, doe what you expect straw should: and for his foode let it bee hay that is sweet though rough, and rather old, or at least well swean in the Mowe.

Cloathing the Horse.

After his belly is emptyed, you shall cloath him first with a single cloath, whilest the heate endureth, and after with more, as you shall see occasion require; and when you beginne to cloath the horse, then shall you also curry, and rub him also. Now for as much as it is a Rule with ignorant horse-men, that if they have but the name of keeping a hunting-horse, they will with all care (without any reason) lay many cloathes upon him, as if it were a partial physicke, you shall know they are much deceived therein, and may sooner doe hurt then good with multiplicity of cloathes: therefore to cloath a horse right, cloath him according to the weather, and the temper of his body: & thus, if you see your horse be slight, smooth and well coloured, then cloath him temperately, as with a single cloath of canvase or sacke-cloth at the

most;

moſt; and if then as the yeare growes colder, you finde his haire riſe or ſtare about his neck, flanckes, or outward parts, then you ſhall adde to a woollen cloath, or more if need require, till his haire fall ſmooth againe, holding it for your rule, that a rough coat ſhewes want of cloaths, and a ſmooth coate, cloathing enough: yet if your horſe have beene cleane fed, taken exerciſe ſufficient, and hath not much glut within him, if then you finde that in the night hee ſweateth in his cloathes, then it is a ſigne he is over fed: but if he be foule inwardly, or hath not ſweat formerly, and now ſweates comming to good feeding, then you ſhall augment rather then diminiſh any cloathing, for his foulneſſe but then breaketh out, and being evacuated, he will come to dryneſſe of body againe, and ſo continue all the yeare after: and ſurely for an ordinary proportion of cloathes, I hold a Canvaſe cloth, and a cloath of Houſe-wives woollen to be at full ſufficient for a hunting-horſe.

A Hunting-horſe would be dreſt in his dayes of Reſt, twice a day, that is, before he goe to his morning watering, and before he goe to his evening watering: for the manner of his dreſſing, after hee is uncloathed, you ſhall firſt curry him from the tips of the eare to the ſetling on of his taile, all his whole body moſt entirely over with an iron combe, his legs under the knees and cambrels onely excepted; then you ſhall duſt him, then curry him againe all over with a round bruſh of Briſtles, then duſt him the ſecond time, then rub all the looſe haires away with your hands wet in cleane water, and ſo rub till the horſe bee as dry as at the firſt, then rub all his body and limbes over with an haire-cloth: laſtly, rubbe him over with a fine white linnen rubber, then picke his eyes, noſtrils, ſheath, cods, tuell, and feet very cleane, and ſo

Of dreſſing the hunting horſe.

cloath him, and ſtop him round with wiſpes, if you water within the houſe, otherwiſe ſaddle him after his body is wrapt about in a wollen cloth, and ſo ride him forth to the water.

Of watering the hunting horſe.

The beſt water for a hunting horſe, is either a running River, or a cleare ſpring remote from the ſtable a mile, or a mile and a halfe at moſt, and neere unto ſome plaine peece of ground, where you may ſcope and gallop after hee hath drunke; and as ſoone as you bring your horſe to the water, let him take his full draught without trouble or interruption: then gallop and ſcope him up and downe a little, and ſo bring him to the water againe, and let him drinke what hee pleaſe: and then gallop him againe: and thus doe till you finde he will drink no more, then having ſcop't him a little, walke him with all gentleneſſe home, and there cloath him up, ſtop him round with great ſoft wiſpes, and ſo let him ſtand an houre upon his bridle, and then feed him.

Of feeding the hunting horſe.

To ſpeak firſt of the food for hunting horſes, the moſt ordinary is good ſweet ſound oates neither throughly dryed with age, or elſe on the kilne, or in the Sun, and if your horſe bee either low of fleſh, or not of perfect ſtomacke, if to two parts of thoſe oates you adde a third part of cleane old beanes, it ſhall be very good and wholſome, and if your horſe be in diet for a match, and have loſt his ſtomack, if then you cauſe thoſe beanes to be ſpelted upon a milne, and ſo mixt with oates, it will recover him. The next food, which is ſomewhat ſtronger and better, is bread thus made: take two buſhels of good clean beanes and one buſhel of wheat, and grinde them together; then through a fine Raunge, bolt out the quantity of two peckes of pur-meale, and bake it in two or three loaves by it ſelfe, and the reſt ſift through a meale five; and

knead

knead it with water and good ſtore of Barme, and ſo bake it in great loaves, and with the courſer Bread feede your horſe in his reſt, and with the finer againſt the daies of ſore labour. Now for the houres of his feeding, it ſhall bee in the morning after his comming from water, an houre after high noone: after his comming from his evening water, and at nine or ten of the clocke at night upon the dayes of his Reſt, but upon the dayes of his exerciſe, two houres after he is throughly cold inwardly and outwardly, and then after according to the houres before mentioned. Laſtly, for the proportion of food, you ſhall keepe no certaine quantity; but according to the horſes ſtomacke, that is to ſay, you ſhall feede him by a little at once, ſo long as he eates with a good appetite, but when hee begins to trifle or fumble with his meate, then to give him no more. Now for his hay, you ſhall ſee that it be dry ſhort uplandiſh hay, and ſo it be ſweet, reſpect not how courſe or rough it is, ſith it is more to ſcoure his teeth and coole his ſtomack, then for any nouriſhment expected from it.

Touching the horſes exerciſe, which is only in the following of the hounds, you ſhall be ſure to traine him after thoſe which are moſt ſwift & ſpeedy, for ſo you ſhal know the truth, and not be deceived in your opinion. Touching the dayes, it ſhal be twice a weeke at leaſt, but moſt commonly thrice. As for the quantity of his exerciſe, it muſt be according to his foulenеſſe or cleanneſſe: for if he be very foule, you muſt then exerciſe moderately to breake his greaſe: if halfe foule, halfe cleane, then ſomewhat more to melt his greaſe; and if altogether cleane, then you may take what you pleaſe of him (provided that you doe nothing to diſcourage his ſpirits, to abate his mettall, or to lame his limbes) and after every

The exerciſe of the horſe.

dayes exercise bee assured to give him either the same night, or the next day following, something by way of scouring, or otherwise, to take away the grease formerly melted, by meanes whereof you shall bee ever sure to keepe your horse in all good health and perfection.

The scouring of the horse.

The best and most excellentest way to scoure or purge your horse from all grease, glut or filthinesse within his body, which is a secret hitherto was never either sufficiently taught or perfectly learned, is to take of Anniseedes three ounces, of Cummine-seedes six drams, of Carthamus a dramme and a halfe, of Fennegreeke-seed one ounce two drams, of Brimstone one ounce and a halfe, beate all these to a fine powder, and searse them; then take of sallet oyle a pinte and two ounces, of hony a pound and a halfe, and of white wine foure pints, then with as much fine white meale as wil suffice, make all into a strong stiffe paste, and knead and worke it well: this paste keepe in a cleane cloth, for it will last long, and after your horse hath beene hunted, and is at night or in the morning exceeding thirsty, take a ball thereof, as much as a mans fist, and wash and dissolve it in a gallon or two of cold water, and it will make the water looke white like milke: then offer it the horse to drink in the darke, least the colour displease him: if he drinke it, then feede him, but if he refuse to drinke it, yet care not, but let him fast without drink till he take it, which assuredly he will doe in twice or thrice offering, and after once he hath taken it, be then assured he will forsake any other drinke for it: of this drinke your horse can never take too much nor too oft, if he have exercise: otherwise it feedes too sore. For all inward infirmities whatsoever it is a present remedy: therefore I would not wish any horseman of vertue at any time to be without it; and be-

ing

ing once made, it will laſt three or foure moneths at leaſt.

After your horſe hath beene exerciſed either with hunting, running, traine-ſents or otherwiſe: you ſhall ever coole him well in the field before you bring him home: but being come to the ſtable, you ſhall neither waſh nor walke, but inſtantly houſe him: give him ſtore of freſh litter, and rub him therewith, and with dry cloathes, till there bee not a wet haire about him, then cloath him with his ordinary cloathes, and wiſpe him round: then caſt another ſpare cloth over him, which you may bate at your pleaſure, and ſo let him ſtand till it be time to feed him. And thus you may keep any hunting horſe either for match or otherwiſe, in as good ſtate and ſtrength as any horſe man in this Kingdome, though he exceed you farre both in reputation and experience.

Ordering a horſe after exerciſe.

Chap. VI.

Of the ordering and dyeting of the running horſe.

IF any Husbandman have his minde taken up onely with the delight of running horſes, which is a noble ſport, and though not of ſo long indurance, yet equall with any before ſpoke of, hee ſhall for the bettering of his knowledge give to his memory theſe few rules following, by which he ſhall rightly order and dyet him.

First, for his taking up from graſſe (for there for order ſake we muſt firſt begin) it ſhall bee at the ſame time of the yeare, and after the ſame manner that you tooke up your hunting horſe, and till you have enfeamed him, hardened his fleſh, taken away his inward greaſe, and brought him to a good perfectneſſe of wind, you ſhall cloath him, dreſſe him, water him, feede him, exerciſe him, purge him and order him, after labour, in all points and all things as you did your hunting horſe.

Of his taking up.

Of cloathing him.

When he is thus cleane of body and winde, you ſhall then lay on him ſome more cloathes then you did on your Hunting horſe, to purge his body a little the more, and to make him the more apt to ſweat & evacuate humours as they ſhall grow: the ordinary quantity whereof would bee a warme narrow wollen cloath about his body, on either ſide his heart, then a faire white ſheete, a woollen cloth above it, and a canvaſe cloath or two above it, and before his breaſt a woollen cloath at leaſt two double: he would continually ſtand upon cleane litter, and have his ſtable very darke, and perfumed with Iuniper, when as the ſtrength of his dung ſhall annoy it.

Of dreſſing him.

For his dreſſing, it ſhall bee in all points done as you did to your hunting horſe, only to dreſſe him once a day is ſufficient, and that ever in the after-noone: but for rubbing his limbes or body with dry cloathes or wiſpes, you ſhall doe that as often as you come into the ſtable, provided that you turne but his clothes up, but not take them from his body.

Of watering him.

You ſhall water your running horſe, as you watered your hunting horſe, and give him the ſame exerciſe after it, only you ſhall not bring him into the ſtable of at leaſt an houre or more after he is watered.

Of feeding him.

The beſt food for your running horſe, is either good ſweet oates well dryed, ſunned, and beaten, or bread made of two parts wheat, and but one part Beanes, and boulted, and ſifted, and knodden, as was before ſhewed: only if you adde to your better ſort of bread the whites of twenty or thirty egges, and with the barme a little Ale alſo, it will be much the better; for you ſhall not reſpect how little water you uſe at all: the houres you feed in, and the quantity of the food ſhall bee the ſame, and in the ſame manner as was mentioned before, for the

hunting

hunting horſe, yet with theſe obſervations, that if your horſe be very leane, ſickely, and have a weake ſtomacke, that then you may as before is ſhewed, give him with his oats a few ſpelted beanes, or elſe waſh his oats in ſtrong Ale or Beere, or in the whites of a couple of egges.

Touching his exerciſe, it conſiſteth in two kindes, the one ayring, the other courſing: Ayring is a moderate and gentle exerciſe, which you ſhall uſe morning and evening, by riding or leading your horſe a foot pace (but Riding is better, and leſſe in danger of cold) in the morning after his water up to the hils, and in the evening after his water by the rivers ſide, by the ſpace of an houre or two together; and before you leade him forth to aire, you ſhall be ſure to give him a rere egge broken into his mouth, as ſoone as his bridle is put on, for it wil increaſe winde: and this ayring you ſhall by no meanes forbeare, but upon his dayes of purging or ſweating, or when it much raineth, for then to ayre is unwholeſome. Again, if your horſe be very fat, you ſhall ayre before Sun riſe, and after Sun ſet: but if he be leane, then you ſhall let him have all the ſtrength and comfort of the Sun you can deviſe, and during this ayring, you ſhall be ſure that your horſe bee cloathed very warme, eſpecially before the breaſt, and on each ſide the heart, for cold to a running horſe is mortall. Of his exerciſe by ayring.

You ſhall courſe your horſe according to his ſtrength and ability of body, that is to ſay, twice a weeke, thrice, or as oft as you ſee cauſe, and you ſhall courſe him ſometimes in his cloathes to make him ſweate, and conſume greaſe; and that muſt be done moderately and gently; and ſometimes without his cloath, to increaſe wind, and that ſhall be done ſharply and ſwiftly: you ſhall by keeping your horſe faſting the night before, be ſure that his Exerciſe by courſing.

body

body be empty before he do course: to wash his tongue and nostrils with vinegar, or to pisse in his mouth ere you take his backe is very wholesome: you shall leade him in your hand well & warme clothed to the course, and there uncloath him, and rub his limbs well: then having courst him, after a little breath taking cloth him againe, and so Ride him home, there rub him throughly, and let him stand till he be fully cold, which perceived, let his first meate you give him, be a handfull or two of the eares of pollard wheate: then after, his ordinary foode as afore-said.

Of sweats. There is also another exercise for your running-horse, which is, sweats in his cloathes, either abroad or in the house, for sweats in his cloathes abroad, they are those which are taken upon the course, & are formerly spoke of, that they must bee given by a moderate galloping, no man Running, and as soone as your horse hath past over his course, and is in a high sweat, you shall instantly have him home, and there lay more cloathes upon him, and keepe him stirring till he have sweat so in the stable an houre or more; then abate his cloathes, by little and little, till he be perfectly cooled and dryed, which you must further, by rubbing him continually with drye cloathes, and by laying dry cloathes on, and taking the wet away: but for sweates in his cloathes, without any exercise abroad, you shall give them eyther when the weather is so much unseasonable, that you cannot goe forth, or when your horse is so much in danger of lamenesse, that you dare not straine him: and you shall doe it thus: first take a blanket folded and warmed very hot, and wrap it about his body, then over it lay two or three more, and wisp them round, then over them as many coverlids, and pin them fast and close; then make the

horse

horse stirre up and downe in the stable, till hee begin to sweat; then lay on more clothes, and as the sweat trickleth downe his face, so rub it away with dry clothes, till he have sweat sufficiently: then (as before is shewed) abate the clothes by little and little, and rub him in every part, till he be as dry as at first.

After every course or sweat, you shall scoure or purge your horse in the same manner, and with the same medicine that you did your hunting horse; for it is the best that can by art be invented, being both a purge and a restorative, cleansing and comforting all the parts of a horses body: but if you thinke it purgeth not enough, then you shall take twenty Raisings of the Sunne, the stones pick'd out, and ten Figs slit in the midst, boile them in a pottle of faire running water, till it come to be thicke, then mixe it with powder of Liquoras, Aniseeds, and Sugar-candy, till it come to a stiffe paste, then make pretty round balls thereof, and roll them up in Butter, and give your horse three or foure of them the next morning after his sweat or course, and ride him an houre after, and then set him up warme. Of scouring him.

After your horse hath beene cours'd or sweat, and is as before said, cold and dry, you shall then unbridle him, give him some few wheat eares, and then at an houre or two after, give him a very sweet mash, then some bread, after which, at his due houre dresse him, and give him when you find him thirsty, some cold water, with a ball of your leaven dissolved into it, and so let him stand till you feed him for all night. Ordering after exercise.

Course not your horse sore for at least foure or five daies before you runne your match, least the soreneſſe of his limbes abate him of his speed. Generall rules for a running Horse.

Except your horse be a very foule feeder, muzzle him not

not above two or three nights before his match, and the night before his bloudy courſes.

Give your horſe as well his gentle courſes as his ſharp courſes upon the Race he muſt runne, that hee may as well finde comfort as diſpleaſure thereon.

In training of your horſe, obſerve not the number of the miles, but the labour fit for your horſe.

Be ſure upon the match day that your horſe be empty and that he take his Reſt untroubled, till you prepare to leade him forth.

Shooe your horſe ever a day before you run him, that the paine of the hammers knocks may be out of his feet.

Saddle your horſe on the Race day in the ſtable before you leade him forth, and fixe both the pannell and the girths to his back and ſides with ſhooe-makers wax, to prevent all dangers.

Leade your horſe to his courſe with all gentleneſſe, and give him leave to ſmell to other horſes dung, that thereby he may be inticed to ſtale and empty his body as he goes.

When you come to the place where you muſt ſtart, firſt rub his limbes well, then uncloath him, then take his backe, and the word given, ſtart him with all gentleneſſe and quietneſſe that may be, leaſt doing any thing raſhly you happen to choake him in his owne winde.

And thus much for the ord ring and dyeting of the Running horſe, and the particularities belonging to the ſame.

CHAP. VII.

The ordering of the travelling horſe.

NOw for our Husbandmans travailing horſe, which is to carry him in his iournies, and about his buſi-

neſſe

neſſe in the Country, he ſhall firſt feed him with the beſt ſweet hay, dry oates, or dry beanes and oates mixt together: in his travaile hee ſhall feed him according to his ſtomacke, more or leſſe, and in his Reſt at a certaine proportion, as halfe a pecke at each watering, is utterly ſufficient. Generall rules for a travelling Horſe.

In your travaile feede your horſe early, that hee may take his Reſt ſoone.

In travaile by no meanes waſh nor walke your horſe, but beſure to rub him cleane.

Water him a mile before you come to your Inne, or more as ſhall lye in your iourney; or if you faile thereof, forbeare it till next morning, for water hath often done hurt, want of water never did any.

Let your horſe neyther eate nor drinke, when hee is extreame hot, for both are unwholeſome.

When the dayes are extreame hot, labour your horſe morning and evening, and forbeare high-noone.

Take not your ſaddle off ſuddenly, but at leiſure, and laying on the cloth ſet on the ſaddle againe till he be cold.

Litter your horſe deepe, and in the dayes of his Reſt, let it alſo lye under him.

Dreſſe your horſe twice a day when he reſts, and once when he travailes.

If the horſe bee ſtoned, let him goe to ſoyle, and bee purged with graſſe in May; a moneth is time long enough, and that graſſe which growes in Orchards under trees is beſt.

Let bloud ſpring and fall, for they are the beſt times to prevent ſickneſſes.

In your iourneying light at every ſteepe hill, for it is a great Refreſhing and comfort to your horſe.

Before you ſleepe every night in your iourney, ſee all your

your horſes feet ſtopt with Oxe dung, for it taketh away the heat of travaile and ſurbating.

Many other neceſſary Rules there are, but ſo depending upon theſe already ſhewed, that who ſo keepeth them, ſhall not be ignorant of any of the reſt, for they differ more in name then nature.

CHAP. VIII.

How to cure all generall inward ſickneſſes in horſes, which trouble the whole body: of Fevers of all ſorts, Plagues, infections, and ſuch like.

SIckneſſes in generall are of two kindes, one offending the whole body, the other a particular member: the firſt hidden, and not viſible, the other apparant and knowne by his outward demonſtration. Of the firſt then which offendeth the whole body, are Fevers of all ſorts, as the Quotidian, the Tertian, the Quartan, the Continuall, the Hittique, the Fevers in Autumne, in Summer, or in Winter, the Fever by ſurfeit, Fever Peſtilent, Fever accidental, or the general plague. They are all known by theſe ſignes: much trembling, panting, and ſweating, a ſullen countenance that was wont to be cheerefull, hot breath, faintnes in labour, decay of ſtomack, and coſtiveneſſe in the body: any, or all of which when you perceive, firſt let the horſe bloud, and after give him this drinke:

The Cure. Take of *Selladine*, rootes and leaves and all, a good handfull, as much *wormewood*, and as much *Rew*, waſh them well, and then bruiſe them in a morter, which done, boyle them in a quart of Ale well, then ſtraine them, and adde to the liquour halfe a pound of ſweet butter, then being but luke warme, give it the horſe to drinke: or halfe an ounce of *Diapente* in a pinte of Muskadine.

CHAP.

Chap. IX.

Of the Head-ach, Frenzie or Staggers.

THe signes to know these diseases, which indeed are all of one nature, and worke all one effect of mortality, are hanging downe of the head, watry eies, rage and reeling: and the cure is, to let the horse bloud in the necke three mornings together, and every morning to take a great quantity: then after each mornings bloud-letting, to give the horse this drinke: Take a quart of Ale, and boyle it with a big white-bread cruft, then take it from the fire, and dissolve three or foure spoonefuls of honey into it, then luke-warme give it the horse to drinke, and cover his temples over with a playster of pitch, and keep his head exceeding warme, let his meate be little, and his stable darke. But to give him the former quantity of *Diapente*, eyther in Muskadine, or hony water, is the best cure.

Chap. X.

Of the sleeping evill.

THe sleeping Evill or Lethargy in horses proceeds from cold, fleamy, moyst humours, which binde up the vitall parts, and makes them dull and heavy: The signes are, continuall sleeping, or desire thereunto. The cure is, to keepe him much waking, and twice in one week to give him as much sweete Sope (in nature of a pill) as a Ducks egge, and then after give him to drinke a little new milke and honey, which is the onely cure at the first, for this disease. But to bee certaine, I pray looke in my Master-piece, and there you shall finde of the infirmity more largely discoursed of, this being but a generall Cure of all Cattle, and not particularly handled, of horses, as that is. The Cure.

CHAP.

CHAP. II.

Of the Falling evill, Planet-ſtrooke, Night-Mare, or Palſey.

THough theſe Diſeaſes have ſeverall faces, and looke as though there were much difference betweene them, yet they are in nature all one, and proceed all from one offence, which is onely cold flegmaticke humours, ingendred about the braine, and benumming the ſenſes, weakning the members, ſometimes cauſing a horſe to fall downe, and then it is called the Falling evill: ſometimes weakning but one member onely, then it is called Planet-ſtrooke; ſometimes oppreſſing a horſes ſtomach, and making him ſweat in his ſleepe, and then it is called the night-Mare: And ſometimes ſpoyling an eſpeciall member, by ſome ſtrange contraction, and then it is called a Palſey. The cure for any of theſe infirmities, is to give the horſe this purging pill: Take of *Terre* three ſpoonfuls of ſweet butter the like quantity, beare them well together with the powder of *Liquoras*, *Anny ſeed*, & *Sugar-candy*, till it be like paſte, then make it into three round balls, and put into each ball two or three cloves of Garlicke, and ſo give them unto the horſe, obſerving to warme him both before and after, and keepe him faſting two or three houres likewiſe, both before and after.

The Cure.

CHAP. XII.

Of the generall Crampe, or Convulſion of ſinewes.

CRamps are taken to bee the contracting or drawing together of the Sinewes of any one member: but Convulſions are when the whole body, from the ſetting on of the head to the extremeſt parts are generally contracted and ſtifned. The cure of either is, firſt to chafe

The Cure.

and

and rub the member connected with Vineger and common oile, and then to wrap it all over with wet Hay, or rotten Litter, or else with wet woolen clothes, either of which, is a present remedy.

Chap. XIII.

Of any cold or cough whatsoever, wet or dry, or for any consumption or putrefaction of the lungs whatsoever.

A Cold is got by unnaturall heats, and too sudden coolings, and these colds ingender coughs, and those coughs putrefaction, or rottennesse of the lungs. The cure therefore of them all in generall, is, to take a handfull or two of the white and greenish *Mosse* which growes upon an old Oke pole, or any old Oke wood: and boile it in a quart of Milke till it be thick, and being cold turned to Jelly, then straine it, and give it the horse luke-warme every morning till his cough end: Or else take three quarters of an ounce of the conserve of *Elicampane*, and dissolve it in a pint of Sacke, and lukewarme give it the horse fasting, then ride him after it, and let him up warme, feede as ordinary times, thus doe three mornings together. The Cure.

Chap. XIV.

Of the running Glaunders, or mourning of the Chine.

TAke of *Auripigmentum* two drams, of *Tutiae* made into powder as much, then mixing them together with *Turpentine* till they be like paste, and making therof little cakes drie them before the fire: then take a Chasing-dish and coales, and laying one or two of the cakes thereon, cover them with a Tunnel, and then the smoake rising, put the Tunnell into the horses nostrils, and let the smoke goe up into his head: which

done. ride the horse till he sweat, doe thus once every morning before he be watered, till the running at his nostrils cease, and the kernels under his chaps weare away.

CHAP. XV.

Of hide-bound, or consumption of the flesh.

HIde-bound or consumption of the flesh, proceedeth from unreasonable travell, disorderly diet, and many sorreses. It is known by a generall dislike and leannesse over the whole body, and by the sticking of the skin close to the body, in such sort, that it will not rise from the body. The cure is first to let the horse blood, and then give him to drinke three or foure mornings together, a quart of new Milke, with two spoonfuls of Honey, and one ounce of *London Treacle*: then let his food be either sodden Barley, warme Graines and salt, or Beanes pieced in a Mill, his drinke Mashes.

The Cure.

CHAP. XVI.

Of the breast paine, or any other sicknesse proceeding from the heart, as the Anticor, and such like.

THese diseases proceed from too ranke feeding, and much fatnesse: the signes are a faultring in his forelegs, disableneſſe to bow downe his necke, and a trembling over his body. The cure is, to let him blood, and give him three mornings together two spoonfuls of *Diapente*, in a quart of Ale or Beere, for it alone putteth away all infection from the heart.

The Cure.

CHAP. XVII.

Of tyred Horses.

IF your horse be tyred, either in journying, or in any hunting match, your best help for him, is to give him warme

warme urine to drinke, and boring him blood in the mouth, to suffer him to licke up and swallow the same. Then if you can come where any Nettles are, to rub his mouth and sheath well therewith: then gently to ride him until you come to your resting place, where set him up very warme; and before you goe to bed, give him six spoonfuls of *Aqua vitæ* to drinke, and as much provender as he will eate. The next morning rub his legges with sheeps-foot oile, and it will bring fresh nimblenesse unto his sinewes.

CHAP. XVIII.

Of diseases in the Stomach, as surfeits, lothing of meats or drinke, or such like.

The cure.

IF your horse with the glut of provender, or raw food, have given such offence to his stomach, that he casteth up all he eateth or drinketh, you shall first give him a comfortable drench, as *Diapente*, or *Treaphanicon* in Ale or Beare; and then keeping him fasting, let him have no food, but what hee eateth out of your hand, which would be bread well bak'd & old, and after every two or three bits, a lock of sweet hay: and his drinke would be only new Milke, till his stomach have gotten strength: and in a bag, you shall commonly hang at his nose, some browne-bread steept in Vinegar, at which he must ever smell, and his stomach will quickly come againe to his first strength.

The cure.

CHAP. XIX.

Of foundring in the body.

FOundring in the body, is of all surfeits the most fleest and soonest gotten: it proceedeth from intemperate riding a horse when he is fat, and then suddenly suffering him

him to take cold: then washing a fat horse, there is nothing sooner bringeth this infirmity. The signes are sadnesse of countenance, staring haire, stifnesse of limbe, and loosse of belly: and the cure is onely to give him wholesome strong meat, as bread of cleane Beanes, and warme drinke, and for two or three mornings together a quart of Ale, brewed with Pepper, and Cynamon, and an ounce of *London Treacle.*

The Cure.

CHAP. XX.

Of the hungry Evill.

THe hungry Evill, is an unnaturall and over-hastie greedinesse in a horse, to devour his meat faster than he can chew it, and is only knowne by his greedy snatching at his meat, as if he would devoure it whole: the cure is, to give him to drinke Milke and Wheat-meale mixt together by a quart at a time, and to feed him with provender by a little and a little, till he forsake it.

The cure.

CHAP. XXI.

Of the diseases of the Liver, as inflammations, obstructions, and consumptions.

THe Liver, which is the vessell of blood, is subject to many diseases, according to the distemperature of the blood, and the signes to know it, is a stinking breath, and a mutuall looking towards his body: and the cure is, to take *Aristolochia longa*, and boile it in running water, till the halfe part be consumed, and let the horse drinke continually thereof, and it will cure all evils about the Liver or any inward conduits of blood.

The cure.

CHAP. XXII.

Of the diseases of the Gall, and especially of the Yellowes.

FRom the overflowing of the Gall, or rather want of the Gall, which is the vessell of choller, spring many mortall

mortall diseases, especially the Yellowes, which is an extreme faint mortall sicknesse, if it be not prevented betime: the signes are yellownesse of the eyes and skin, and chiefly underneath his upper lip next unto his foreteeth, a sudden & faint falling down by the high way, or in the stable, and an universall sweat over all the body. The cure is, first to let the horse blood in the necke, in the mouth, and under the eyes; then take two penny-worth of *Saffron*, which being dryed and made into fine powder, mixe it with sweet *Butter*, and in manner of a pill give it in balls to the horse, three mornings together, let his drinke be warme, and his hay sprinkled with water: A quart of a strong decoction of *Salladine* helps it also. The cure.

CHAP. XXIII.

Of the sicknesse of the Spleene.

THe Spleene which is the vessell of Melancholy, when it is overcharged therewith, growes painfull, hard, and great, in such sort, that sometimes it is visible. The signes to know it, is much groaning, hasty feeding, and a continuall looking to his left side only. The cure is, take *Agrimony*, and boile a good quantity of it in the water, which the horse shall drinke; and chopping the leaves small, mixe them very well with sweet *May butter*, and give the horse two or three good round balls thereof, in the manner of Pills. The cure.

CHAP. XXIIII.

Of the dropsie or evill habit of the body.

THe Dropsie is that evill habit of the body, which ingendred by surfeits and unreasonable labour, altereth the colours and complexions of horses, and changeth the

haires, in such an unnaturall sort, that a man shall not know the Beast, with which he hath beene most familiar.

The cure. The cure is to take a handfull or two of *Worme-wood*, and boiling it in Ale or Beere, a quart or better, give it the horse to drinke luke-warme, morning and evening, and let him only drinke his water at noone time of the day.

Chap. XXV.

Of the Collicke, Belly-ake, and Belly bound.

The Chollicke or Belly-ake is a fretting, gnawing, or swelling of the Belly, or great bag, proceeding from windie humors, or from eating of greene corne or pulse, hot graines without Salt or labour, or bread dow-bak'd:

The cure. and Belly-bound, is when a horse cannot dung. The cure of the Chollicke or Bely-ake, is, to take good store of the herb *Dill*, and boile it in the water you give your horse to drinke; but if he cannot dung, then you shall boile in his water good store of the herb called *Fenegreek*, and it will make him loose without danger or hurting.

Chap. XXVI.

Of the Laxe or Bloody-Flixe.

The Laxe or Bloody-flix, is an unnaturall looseneſſe in a horses body, which not being staied, will for want of other excrement, make a horse void blood one-

The cure. ly. The cure is, take a handfull of the herbe *Sh pheards-purse*, and boile it in a quart of strong Ale, and when it is luke-warme, take the seeds of the herbe *Wood-rose* stampt and put it therein, and give it the horse to drinke.

Chap. XXVII.

Of the falling of the Fundament.

This commeth through mislike and weakneſſe, and the cure is: Take *Towne creſſes*, and having dried them to powder, with your hand put up the Fundament, and then ſtrow the powder thereon, after it lay a little Hony thereon, and then ſtrow more of the powder, mixt with the powder of *Comin*, and it helpeth. The cure.

Chap. XXVIII.

Of Bots and Wormes of all ſorts.

The Bots and gnawing of Wormes, is a grievous paine, and the ſignes to know them, is the horſes oft beating his belly, and tumbling and wallowing on the ground, with much deſire to lie on his backe. The cure is, take the leaves chopt of the herbe *Sawen*, and mix it with *Hony* and *Butter*, and making two or three balls thereof, make the horſe ſwallow them downe, and it will helpe him. The cure.

Chap. XXIX.

Of the paine in the Kidnies, paine-piſſe, or the ſtone.

All theſe diſeaſes ſpring from one ground, which is onely gravell and hard matter gathered together in the Kidnies, and ſo ſtopping the conduits of Urine: the ſignes are only that the horſe will oft ſtraine to piſſe, but cannot. The cure is to take a handfull of *Maiden-haire*, and ſteepe it all night in a quart of ſtrong Ale, and give it the horſe to drinke every morning till he be well: this will breake any ſtone whatſoever in a horſe. The cure.

Chap. XXX.

Of the Strangullion.

This is a ſoreneſſe in the horſes yard, and a hot burning ſmarting when hee piſſeth: the ſignes are, hee

will piſſe oft, yet but a drop or two at once. The cure is,
The Cure. to boile in the water which he drinketh, good ſtore of the herbe *Mayſh*, or *Hogs-fennell*, and it will cure him.

CHAP. XXXI.

Of piſſing blood.

THis commeth with over-travelling a horſe, or travelling a horſe ſore in the winter when hee
The Cure. goeth to graſſe. The cure is: take *Ariſtolochia longa*, a handfull, and boile it in a quart of Ale, and give it the horſe to drinke luke-warme, and give him alſo reſt.

CHAP. XXXII.

Of the Colt-evill, mattering of the yard, falling of the yard, ſhedding the ſeede.

ALL theſe evills proceed from much luſt in a horſe;
The cure. and the cure is, the powder of the herbe *Anis*, and the leaves of *Betony*; ſtampe them with white *Wine*, to a moyſt ſalve, and annoint the ſore therewith, and it will heale all imperfection in the yard: but if the horſe ſhed his ſeed, then beat *Venice Turpentine* and *Sugar* together, and give him every morning a good round ball thereof, untill the fluxe ſtay.

CHAP. XXXIII.

Of the particular diſeaſes in Mares, barrenneſſe, conſumption, rage of love, caſting Foales, hardneſſe to foale, and how to make a Mare caſt her Foale.

IF you have your Mare barren, let good ſtore of the herbe *Agnus caſtus* be boiled in the water ſhe drinketh. If you would have her fruitfull, then boile good ſtore of *Mother-wort* in the water which ſhe drinketh: If ſhee loſe her belly, which ſheweth a conſumption of the

wombe, you ſhall then give her a quart of Brine to drink, *Mugwort* being boiled therein. If your Mare through pride of keeping, grow into too extreme luſt, ſo that ſhe will neglect her food, through the violence of her fleſhly appetite, as it is often ſeene amongſt them, you ſhall houſe her for two or three daies, and give her every morning a ball of Butter and *Agnus caſtus* chopt together. If you would have your Mare to caſt a Foale, take a handfull of *Dettony*, and boile it in a quart of Ale, and it will deliver her preſently. If ſhe cannot foale, take the herbe *Horſe-mint*, and either drie it or ſtamp it, and take the powder or the juyce, and mixe it with ſtrong Ale, and give it the Mare, and it will help her. If your Mare from former bruſings or ſtrokes be apt to caſt her Foales, as many are, you ſhall keepe her at graſſe very warme, and once in a weeke, give her a good warme maſh of drinke: this ſecretly knitteth beyond expectation.

Chap. XXXIIII.

Of drinking venome, as Horſe-leaches, Hens-dung, or ſuch like.

IF your horſe have drunke Horſe-leaches, Hens-dung, feathers, or ſuch like venemous thing, which you ſhall know by his panting, ſwelling, or ſcouring, you ſhall take the herbe *Sow-thiſtle*, and drying it, beat it into powder, and put three ſpoonfulls thereof into a quart of Ale, and give it the horſe to drinke.

Chap. XXXV.

Of Suppoſitaries, Clyſters, and Purgations.

IF your horſe by ſickneſſe, ſtrict dyet, or too vehement travell grow dry and coſtive in his body, as it is ordinary, the eaſieſt meanes in extremity to help him, is to give

him

him a Suppositary: the best of which is, to take a Candle of foure in the pound, and cut off five inches at the bigger end, and thrusting it up a good way with your hand into his fundament, presently clap downe his taile, and hold it hard to his tuell a quarter of an houre, or halfe an houre: and then give him liberty to dung; but if this be not strong enough; then you shall give him a Clyster, and that is, take foure handfulls of the herbe *Anise*, and boile it in a pottle of running water, till halfe be consumed, then take the decoction, and mixe it with a pint of Sallet-oile, and a pretty quantity of salt, and with a clyster-pipe give it him at his tuell. But if this be too weake, then give him a purgation thus: Take twenty *Raisins* of the Sunne without stones, and ten *Figs* slit, boile them in a pottle of running-water, till it come to a gelly; then mix it with the pouder of *Liquorus*, *Annifeeds*, and *Sugar-candy*, till it be like paste, then make it into balls, and roll it in sweet Butter, and so give it the horse, to the quantity of three Hen egs.

Chap. XXXVI.

Of Neesings and Frictions.

THere be other two excellent helps for sicke horses; as Frictions and Neesings: the first to comfort the outward parts of the body, when the vitall powers are astonished; the other to purge the head when it is stopt with phlegme, cold, or other thicke humors. And of Frictions, the best is *Vinegar* and *Patch-grease* melted together, and very hot chafed into the horses body against the haire. And to make a horse neese, there is nothing better, than to take a bunch of *Pellitory* of *Spaine*, and binding it unto a sticke, thrust it up a horses nostrill, and it will make him neese without hurt or violence.

Chap.

Chap. XXXVII.

Of diseases in the eyes: as watry-eyes, blood-shotten-eyes, dim eyes, moone eyes, stroke in the eye, wart in the eye, inflammation in the eye, Pearle, Pin, Web, or Haw.

VNto the Eye belongeth many diseases, all which have their true signes in their names, and as touching that which is watry, blood-shotten; dim, moone, stricken or inflamed, they have all one cure. The cure is, take *Worme-wood*, and beat it in a Mortar with the gall of a Bull, straine it, and annoint the horses eyes therewith, and it is an approved remedy. But for the Wart, Pearle, Pin or Web, which are evills growne in, and upon the eye, to take them off, take the juyce of the herbe *Betin*, and wash his eyes therewith, and it will weare the spots away: For the Haw every Smith can cut it out. The cure.

Chap. XXXVIII.

Of the Impostume in the eare, Pole evill, Fistula, swelling after blood-letting, any gald back, canker in the Withers, Sitfast, Wens, Nawell galt, or any hollow ulcer.

THese diseases are so apparent and common, that they need no further description but their names, and the most certaine cure is to take clay of a mud, or lome wall, without Lime, the strawes and all, and boiling it in strong Vinegar, apply it plaisterwise to the sore, and it will of it owne nature search to the bottome, and heale it: provided, that if you see any dead or proud flesh arise, that then you either eate or cut it away. The cure.

Chap. XXXIX.

Of the Vives.

FOr the Vives, which is an inflammation of the kirnels betweene the chap and the necke of the horse: take

Pepper

Pepper one penny worth, of *Swines greaſe* one ſpoonfull, the juyce of a handfull of *Rew*, *Vinegar* two ſpoonfulls, mixe them together, and then put it equally into both the horſes eares, and then tie them up with two flat laces, then ſhake the eares, that the medicine may goe downe, which done, let the horſe blood in the necke, and in the temple veines, and it is a certaine cure.

Chap. XL.

Of the ſtrangle, or any Bile, Botch, or other Impoſteume whatſoever.

ALL theſe diſeaſes are of one nature, being only hard Biles or impoſtumes gathered together by evill humours, either betweene the chaps, or elſewhere on the body. The cure is, take *Southernwood*, and dry it to powder, and with *Barley meale*, and the yolke of an Egge, make it into a ſalve, and lay it to the Impoſtume, and it will ripen it, breake it, and heale it.

The cure.

Chap. XLI.

Of the Canker in the Noſe, or any other part of the body.

TO heale any Canker in what part ſoever it be: take the juyce of *Plantane*, as much *Vinegar*, and the ſame weight of the powder of *Allom*, and with it annoint the ſore twice or thrice a day, and it will kill it and cure it.

The cure.

Chap. XLII.

Of ſtanching of blood, whether it be at the noſe, or proceede from any wound.

IF your horſe bleed violently at the noſe, and will not be ſtaid, then you ſhall take *Bettony*, and ſtampe it in a mortar with Bay-ſalt, or other whire Salt, and ſhop it into the horſes noſe, or apply it to the wound, and it wil ſtanch it:

its bug if you be ſuddenly taken, as riding by the high way, or otherwiſe, and cannot get this herbe, you ſhall then take any woollen-cloth, or any felt Hay, and with a knife ſcrape a fine Lint from it, and apply it to the bleeding place, and it will ſtaunch it preſently.

CHAP. XLIII.

Of the diſeaſes in the mouth, as bloody Riſts, Iigs, Lampas, Camery, inflammation, tongue-burt, or the Barbs.

IF you finde any infirmity in your horſes mouth, as the bloody Rifts, which are chaps or rifts in the palate of the horſes mouth: the Jigs, which is a little puſtels or bladders within the horſes lips: the Lampas, which is an excreſſion of fleſh above the teeth: the Camery, which is little warts in the roofe of the mouth: Inflammation, which is bliſters: Barbs, which are two little paps under the tongue, or any hurt on the tongue by bit or otherwiſe: you ſhall take the leaves of *Wormewood*, and the leaves of *Shirwit*, and beat them in a morter with a little hony, and with it annoint the ſores, and it will heale them, as for the Lampas, they muſt be burnt away, which the ignorant eſt Smith can eaſily doe. The cure.

CHAP. XLIV.

Of paine in the teeth, or looſe teeth.

FOr any paine in the teeth, take *Bettony*, and ſeeth it in Ale or Vinegar till a halfe part be conſumed, and waſh all the gums therewith: but if they be looſe, then onely rub them with the leaves of *Elicampane* or *Horſebelme*, after they have beene let blood, and it will faſten them.

CHAP. XLV.

Of the Cricke in the necke.

FOr the Crick in the neck, you ſhall firſt chafe it with the Friction before ſpecified, and then annoint and bathe

bathe it with Sope and Vinegar, boyled together.

Chap. XLVI.

Of the falling of the Creſt, mangines in the Maine, or ſhedding of the haire.

ALL theſe diſeaſes proceed from poverty, miſſlike, or over-riding; and the beſt cure of the falling of the Creſt, is blood-letting, and proud keeping, with ſtore of meate, for ſtrength and fatneſſe ever will raiſe up the Creſt, but if the Maine be mangie, you ſhall anoint it with Butter and Brimſtone, and if the haire fall away, then take *Sotherwood*, and burne it to aſhes, then take thoſe aſhes, and mixing them with common oile, annoint the place therewith, and it will bring haire preſently, ſmooth, thicke and faire.

Chap. XLVII.

Of paine in the Withers.

A Horſes Withers are ſubject to many griefes and ſwellings, which proceed from cold humours, ſometimes from evill ſaddles, therefore if at any time you ſee any ſwelling about them, you ſhall take the herb *Harts tongue*, and boile it with the oile of *Roſes*, and very hot apply it to the ſore, and it will aſſwage it, or elſe breake it, and heale it.

Chap. XLVIII.

Of ſpaying the Backe, or weakneſſe in the Backe.

THeſe two infirmities are dangerous, and may be eaſed, but never abſolutely cured, therefore where you finde them, take *Colworts*, and boile them in oile, and mixing them in a little Beane-meale, charge the Backe, and it will ſtrengthen it.

Chap.

Chap. XLIX.

Of the Itch in the taile, or of the generall Scab and mangineſſe, or of the Farcie.

FOr any of theſe diſeaſes, take freſh greaſe, and yellow *Arſnicke*, mix them together, and where the Mangineſſe or Itch is, there rub it hard in, the ſore being made raw: but if it be for Farcie, then with a Knife, ſlit all the knots, both hard and ſoft, and then rub in the medicine: which done, tie up the Horſe, ſo as he may not come to bite himſelfe, and then after he hath ſtood two or three houres, take old piſſe and ſalt boiled together, and with it waſh away the ointment, and then put the Horſe to meat; doe thus two or three daies together, provided alwaies, that you firſt let him blood, and take good ſtore from him, and alſo give him every morning a ſtrong ſcouring, or a ſtrong purge, both which are ſhewed before.

Chap. L.

Of any halting which commeth by ſtraine, or ſtroke, either before or behind from the ſhoulder or Hip downe to the Hoofe.

THere be many infirmities which make a horſe halt, as pinching the ſhoulder, wrench in the ſhoulder, wrench in the neather joynt, ſplatting the ſhoulder, ſhoulder pight, ſtraines in joints, and ſuch like: all which, ſince they happen by one accident, as namely, by the violence of ſome ſlip or ſtraine, they may be cured by one medicine, and it is thus. After you have found where the griefe is, as you may doe by griping and pinching every ſeverall member, then where he moſt complaineth, there is his moſt griefe. You ſhall take (if the ſtraine be new) *Vineger*, *Bolearmoniacke*, the whites of Egges and beane-

flower,

flower, and having beaten them to a perfect salve, lay them very hot to the sore place, and it will cure it: but if the straine be old, then take Vinegar and Butter, and melting them together with Wheat-bran, make it into a pultis, and lay it to the sore as hot as may be, and it will without doubt, take away the griefe.

Chap. LI.

Of foundring in the feete.

OF foundring, there be two sorts, a dry and a wet: the drie foundring is incurable, the wet is thus to be helpt: First pare all the soles of his feet so thin, that you may see the quicke, then let him blood at every toe, and let them bleed well, then stop the veine with *Tallow* and *Roses*, and having tackt hollow shooes on his feete, stop them with *Bran*, *Tarre*, and *Tallow*, as boiling hot as may be, and renue it once in two daies, for a weeke together, then exercise him much, and his feete will come to their true use and nimblenesse.

The cure.

Chap. LII.

Of the Splent, Curbe, Bone-spaven, or any knoble or bony excression, or ring-bone.

A Splent is a bony excression under the knee or the fore legge, the Curbe is the like behind the hinder hough, the Spavine is the like on the inside of the hinder hough, and the Ring-bone is the like on the croner of the hoofe. And the cure is, first upon the top of the excression, make a slit with your knife the length of a Barly-corne, or a little more, and then with a fine corner, raise the skin from the bone, and having made it hollow the compasse of the excression, and no more; take a little line, and dip it into the oile of *Origanum*, and thrust it into

The cure.

the

the hole, and cover the knob, and ſo let it bride till you ſee it rot, and that Nature caſteth out both the medicine and the core. As for the Ring-bone you ſhall neede to ſcarifie and annoint it with the oile onely.

CHAP. LIII.

Of the Mallander, Selander, Paines, Scratches, Mellet, Mules, Crowne ſcabs, and ſuch like.

FOr any of theſe Sorrances, you ſhall take Verdigreaſe, and ſoft greaſe, and grinding them together, to an ointment, put it in a boxe by it ſelfe: then take Wax, Hogs-greaſe, and Turpentine, of each alike, and being melted together, put that ſalve into another boxe: then when you come to dreſſe the ſore, after you have taken off the ſcab and made it raw, you ſhall annoint it with your greene ſalve of Verdigreaſe and freſh greaſe onely for two or three daies; it is a ſharp ſalve, and will kill the cankerous humour; then when you ſee the ſore looke faire, you ſhall take two parts of the yellow ſalve, and one part of the greene ſalve, and mixing them together, annoint the ſore therewith till it be whole, making it ſtronger or weaker, as you ſhall finde occaſion.

CHAP. LIIII.

Of an upper Attaint, or nether Attaint, or any hurt by over-reaching.

THeſe Attaints are ſtrokes or cuts by over-reaching, either on the backe ſinew of the fore-legge, on the heeles or nether joynts, and may be ſafely healed by the ſame former medicine and meane which healeth the *Mallander*, or *Selander*, in the former *Chapter*, onely for your over-reaches, you ſhall before you apply your ſalve, lay the ſore plaine and open, without hollowneſſe, and

wash it with Beere and Salt, or Vinegar and Salt.

Chap. LV.

Of the infirmities of hoofes as false quarters, loose hoofes, casting hoofes, hoof-bound, hoofe-running, hoofe-brittle hoofe-hurt, hoofe-soft, hoofe-hard, or generally to preserve hoofes.

THe hoofe is subject to many miseries: as first, to false quarters, which commeth by pricking, and must be help'd by good shooing, where the shooe must beare on every part of the foot, but upon the false quarters only. If the hoofe be loose, annoint it with pitch of *Burgundy*, and it will knit it: if it be cleane cast off, then pitch of *Burgundy* and *Tallow* molten together, will bring a new: if it be bound or straitned, it must be very well opened at the heels, the soale kept moist, and the cronet annointed with the fat of *Bacon* and *Tarre*. If the frush of the feet run with stinking matter, it must be stopt with *Soote*, *Turpentine*, and *Bolearmoniake* mix'd together: if it be brittle or broken, then annoint it with *Pitch* and *Linseed-oile* molten to a soft salve: if it be soft, then stop it with *Sope*, and the *ashes* of a burn'd *Felt* mixt together: if the hoofes be hard, lay hot burning *Cinders* upon them, and then stop them with *Tow* and *Tallow*: and generally for the preserving of all good hoofes, annoint them daily with the *Sward* or *Rinde* of fat *Bacon*.

Chap. LVI.

Of the blood spaven, or hough bony, or any other unnaturall swelling, from what cause soever it proceedeth.

THese two sorrances are Pustels, or soft round swellings, the first on the inside of the hinder hough, and the other on the very huckle of the hough behind, they are soft and very sore, and the cure is: First, to take up

The cure.

the

the veine above, and let it bleed only from below, then having knit it fast with two shooe-makers ends on both sides the slit, cut the veine in two pieces: then take *Linseed*, and bruise it in a Mortar, then mixe it with *Cowdung*, and heat it in a Frying pan, and so apply it to the swelling only, and if it breake and run, then heale it with a plaister of *Pitch*, and the horse shall never be troubled with *Spaven* more: but if the swelling come by straine or bruise, then take *Patch-grease*, and melting it, annoint the sore therewith, holding a hot iron neere it to sinke in the *grease*, then fold a linnen cloth about it, and it will asswage all swellings whatsoever.

Chap. LVII.

Of Wind Galls.

THese are little blebs, or soft swellings on each side the Fetlocke, procured by much travell on hard and stony waies. The cure is to pricke them, and to let out the jelly, and then dry up the sore with a plaister of *Pitch*. The cure.

Chap. LVIII.

Of enterfairing or Shackle-gall, or any gallings.

ENterfairing, is hewing one leg on another, and striking off the skin: it proceedeth from weaknesse or straightnesse of the horses pace, and Shackell-gall is any gall underneath the Fetlocke. The cure is, to annoint them with *Turpentine* and *Verdigresse* mix'd together, or *Turpentine* alone, if it rankle not too much. The cure.

Chap. LIX.

Hurts on the Cronet, as the quittirbone, or Matlong.

THe Quitterbone is a hollow ulcer on the top of the Cronet, and so is the Matlong, and the cure is: First,

to taint it with Verdigreale untill you have eaten out the core, and made the wound very cleane; then you shall heale it up with the same salves, that you heale the Scratches.

The Cure.

CHAP. LX.

Of wounds in the foote: as gravelling, pricking, figge, retrait, or cloying.

IF your horse have any wound in his foot, by what mischance soever, you shall first search it, and see that it be cleare of any naile point, or other splent to annoy it, then wash it very well with white Wine and Salt, and after taint it with the ointment called *Egyptiacum*, and then lay hot upon the taint, with *Flaxe* hurds, *Turpentine*, *Oile*, and *waxe* mingled together, and annoint all the top of the hoofe and cronet with *Bolearmoniake* and *Vinegar*: doe thus once a day untill the sore be whole.

CHAP. LXI.

[*To draw out a Stub or Thorne.*

TAke the herbe *Detany*, and bruise it in a Mortar with blacke *Sope*, and lay it to the sore, and it will draw out the splent, iron, thorne, or stub.

CHAP. LXII.

Of the Auburie or Tetter.

THe Auburie is a bloody wart on any part of the horses body, and the Tetter is a cankerous ulcer like it: The cure of both is with an hot iron, to seare the one plaine to the body, and to scarifie the other; then take the juyce of *Plantaine* and mix it with *Vinegar*, *Hony*, and the pouder of *Allom*, and with it annoint the sore till it be whole.

The cure.

CHAP.

Chap. LXIII.

Of the Canks or string-halt.

THis is an unnaturall binding of the sinewes; which imperfection, a horse bringeth into the World with him: and therefore it is certaine, it is incurable, and not painfull, but onely an eye-sore, yet the best way to keep it from worse inconvenience, is to bathe his limbes in the decoction of *Colworts*.

Chap. LXIIII.

Of Spur-galling, or fretting the skin and haire.

FOr this, there is nothing better than Pisse and Salt, with which wash the sore daily.

Chap. LXV.

Of healing any old Sore or Wound.

FResh Butter, and the herbe *Aneos* chopt and beaten together to a salve will heale any wound, or any old sore.

Chap. LXVI.

Of sinewes being cut.

IF the Horses sinewes be cut, take the leaves of wilde *Nepe* or *Woodbine*, and beating them in a Mortar with *May-butter*, apply it to the sore, and it will knit the sinewes.

Chap. LXVII.

Of eating away dead flesh.

TAke *Stubwort*, and lap it in a red Docke leafe, and roast it in the hot cinders, and lay it to the sore, and it will eate away any dead flesh. So will *Verdigrease*, burnt *Allome*, or *Lime*. The cure.

CHAP. LXVIII.

Of Knots in the flesh.

PAtch-greaſe applyed as is before ſpoken for ſwellings, will take away any hard knots in the fleſh, or upon the ſinewes.

CHAP. LXIX.

Of venemous wounds: as biting with a mad Dog, ſtukes of Bores, Serpents, or ſuch like.

FOr any of theſe mortall or venemous wounds, take *Yarrow*, *Calamint*, and the graines of *Wheat*, and beat them in a Mortar with water of *Southernwood*, and make it into a ſalve, and lay it to the ſore, and it will heale it ſafely.

CHAP. LXX.

Of Lice, or Nits.

THis filthineſſe of Vermine is bred in a horſe through unnaturall diſlike and poverty: The cure is, take the juyce of *Beets* and *Staveſaker* beaten together, and with it anoint the horſes body over, and it will make him cleane.

The cure.

CHAP. LXXI.

Of defending a horſe from Flies.

TAke the juyce of *Pellitory* of *Spaine*, and mixing it with milke, anoint the horſes belly therewith, and no Flies will trouble him.

CHAP. LXXII.

Of broken bones, or bones out of joynt.

AFter you have placed the bones in their true places; take the *Ferne-oſmund*, and beat it in a Mortar with the oile of *Swallowes*, and anoint all the member, then ſplent it and roll it up, and in fifteene daies, the bones will knit and be ſtrong.

Chap. LXXIII.

Of drying up ſores when they be almoſt whole.

ALlome burn'd, unſleek'd Lime, the aſhes of an old ſhooe-ſole burn'd, or Oiſter-ſhels burn'd, any of theſe ſimply by themſelves, will dry up any ſore, though never ſo moiſt.

Chap. LXXIIII.

A moſt famous Receit to make a Horſe that is leane, and full of inward ſickneſſe, ſound, and fat in fourteene daies, having beene often approved of.

TAke of *Wheate-meale* ſix pound, *Anniſeeds* two ounces, *Cummin-ſeedes* ſix drams, *Carthamus* one dram and a halfe, *Fennegreeke-ſeedes* one ounce two drammes, *Brimſtone* one ounce and a halfe, *Sallet-oile* one pint, *Honey* one pound and a halfe, white *Wine* foure pints: this muſt be made into paſte, the hard ſimples being pounded into powder, and finely ſearſt, and then kneaded together, and ſo made into balls as big as a mans fiſt, then every watering conſume one of thoſe balls into his cold water, which he drinketh for morning and evening for fifteene daies together, and if at the firſt he be dainty to drinke the Water, yet care not, but let him faſt till he drinke it, and after he beginnes to take it, he will drinke it with great greedineſſe.

Chap. LXXV.

How to make a white Starre.

SLit the horſes fore-head, the length of your Starre, and then raiſe the skinne up with a cornet, and put in a plate of Leade as bigge as the Starre, and let it remaine ſo two or three daies together; and then let it out and preſſe downe the skin with your hand, and that haire

will fall away, and white will come in the place: or to ſcald the face or skinne with a ſower Apple roſted, will bring white haire: But to make a blacke ſtarre, or a red ſtarre in a horſes fore-head, I referre it for you to looke and approve of in my *Maſter-peece*, which belongeth only to that for to be ſo exactly diſcourſed of, this being only a generall cure of all Cattell.

The end of the Horſe.

The generall cure and ordering of the Bull, Cow, Calfe, or Oxe.

Chap. I.

Of the Bull, Cow, Calfe or Oxe, their ſhape, breed, uſe, choiſe, and preſervation.

FOr as much as the Male of all creatures are the principall in the breed and generation of things, and that the fruit which iſſueth from their ſeed, participateth moſt with their outward ſhapes, and inward qualities, I thinke fitteſt in this place, where I intend to treat of horned Cattell and Neate; to ſpeake firſt of the choice of a faire Bull, being the breeders principalleſt inſtrument of profit. You ſhall underſtand then, that of our *Engliſh* Cattell (for I will not ſpeake of thoſe in *Italy*, and other forraigne countries, as other Authors doe, and forget mine owne) the beſt are bred in *York ſhire*, *Darby-ſhire*, *Lancaſhire*, *Stafford ſhire*, *Lincolne ſhire*, *Gloſter ſhire*, and *Somerſet-ſhire*, though they which are bred in *Yorke ſhire*, *Darby-ſhire*, *Lancaſhire*, and *Stafford-ſhire*, are generally all blacke

The Countries for breed.

blacke of colour, and though they whose blacknesse is pureſt, and their haires like Velvet, are eſteemed beſt; they have exceeding large hornes, and very white, with blacke tips; they are of ſtately ſhape, bigge, round, and well buckled together in every member, moſt joynted, and moſt comely to the eye, ſo that they are eſteemed excellent in the Market: thoſe in *Lincolne-ſhire* are the moſt part Pide with more white, than other colours, their hornes little and crooked; of bodies exceeding tall, long and large, leane and thin thigh'd, ſtrong hoofed, not apt to ſurbait, and are indeed fitteſt for labour and draught. Thoſe in *Somerſet-ſhire* and *Gloſter-ſhire*, are generally of a blood red colour, in all ſhapes like unto thoſe in *Lincolne-ſhire*, and fitteſt for their uſes. Now to mixe a race of theſe and the blacke ones together, is not good, for their ſhapes and colours are ſo contrary, that their iſſue are very uncomely; therefore I would wiſh all men to make their breeds either ſimply from one and the ſame kind, or elſe to mixe *Yorke-ſhire* with *Staffords-ſhire*, with *Lancaſhire*, or *Darby-ſhire* with one of the blacke races, and ſo likewiſe *Lincolne-ſhire* with *Somerſet-ſhire*, or *Somerſet-ſhire* with *Gloſter ſhire*.

Of not mixing, and mixing of races.

Now for the ſhape of your Bull; hee would be of a ſharp and quicke countenance, his hornes the larger the better, the neck fleſhie, his belly long and large, his forehead broad and curled, his eyes blacke and large, his eares rough within, and haire like Velvet, his mozell large and broad at his upper lip, but narrow and ſmall at the neather, his noſtrill crooked within, yet wide and open, his dew-lap extending from his neather lip downe to his fore-boothes, large, ſide, thin and hairy, his breaſt rough and bigge, his ſhoulders large, broad and deepe; his ribs broad and wide, his backe ſtreight and flat, even to the

The ſhape of the Bull.

ſetting

ſetting on of his taile, which would ſtand
kle-bones round and faire appearing,
tocks ſquare, his thighs round, his legs ſtr
joynted; his knees round and big, his h
long and hollow, his taile long, and buſh
pyzell round, and alſo well hair'd. Theſe
for breed, ſo they are excellently good for the draught,
only they naturally draw better ſingle, like Horſes, than
in the yoake, like Oxen: the reaſon, as I ſuppoſe, being
becauſe they can hardly be match'd in an equall manner.

The uſe of the Bull.

Of the Cow, and her ſhape.

Now for the Cow, you ſhall chooſe her of the ſame
country with your Bull, and as neere as may be of one co-
lour, onely her Bag or Udder would ever be white, with
foure Teats, and no more, her belly would be round and
large, her fore-head broad and ſmooth, and all her other
parts ſuch as are before ſhewed in the Male kind.

Of her uſe.

The uſe of the Cow is two-fold, either for the Dary,
or for breed: The red Cow giveth the beſt milke, and
the blacke Cow bringeth forth the goodlieſt Calfe. The
young Cow is the beſt for breed, yet the indifferent old
are not to be refuſed. That Cow which giveth milke
longeſt is beſt for both purpoſes, for ſhe which goes long
drie, looſeth halfe her profit, and is leſſe fit for teeming:
for commonly they are ſubject to feed, and that ſtraine
in the wombe or matrix.

Of Calves and their nourihing.

Now for Calves, there are two wales of breeding them:
the one to let them run with their Dams all the yeere,
which is beſt, and maketh the goodlieſt beaſt: the other,
to take them from their Dams, after their firſt ſucking,
and ſo bring them up on the finger, with ſtorren milke,
the cold onely being taken away, and no more; for to
give a young Calfe hot milke is preſent death, or very
dangerous. If your Calfe be calved in the five da es after

Obſervations.

the

[illegible] called the [illegible] reare it, for moſt [illegible] will have [illegible] before preſerve it only for the Butcher; alſo [illegible] have preſerved thoſe male Calves, which ſhall [illegible] bulls, then geld the reſt for Oxen, and the younger they are gelt the better. The beſt time for [illegible] of Calves, is from *Michaelmas* till *Candlemas*. A Calfe ſhould be nouriſhed with milke twelve weekes, only a fornight before you weane it from milke, let the milke be mixed with water. After your Calfe hath drunke one moneth: you ſhall take the fineſt, ſweeteſt, and ſofteſt Hay you can get, and putting little wiſpes into cloven ſtickes, place them ſo as the Calfe may come to them, and learne to eate Hay. After our *Ladies*-day when the weather is faire, you may turne your Calves to graſſe, but by no meanes let it be ranke, but ſhort and ſweet, ſo that they may get it with ſome labour.

Now of the Oxe: You ſhall underſtand, that the largeſt are the beſt and moſt profitable, both for draught or feeding: for he is the ſtrongeſt to indure labour, and beſt able to containe both fleſh and tallow. Now for his ſhape, it differeth nothing from that of the Bull, only his face would be ſmooth, and his belly deeper. That Oxe is fitteſt for the yoake, which is of gentleſt nature, and moſt familiar with the man. In matching your Oxen for the yoake, let them as neere as may be be of one height, ſpirit, and ſtrength, for the ſtronger will ever wrong the weaker, and the duller will injure him that is of free ſpirit, except the driver be carefull to keepe the dull Oxe to his labour. Oxen for the yoake, would by no meanes be put beyond their ordinary pace: for violence in travell heats them, heat breeds ſurfeit, and ſurfeit thoſe diſeaſes which makes them unapt to feed, or for any other uſe of goodneſſe.

Of the Oxe, and his uſe.

Of his Foode for labour.

goodneſſe. Your Oxe for the yoake will labour [illegible] with Barley-ſtraw, or Peaſe-ſtraw, and for ſolemn [illegible] which is Hay and Straw mix'd together, hee will [illegible] no better feeding.

Oxen to feed for the Butcher.

Now for your Oxe to feede, hee would as much as might be, be ever of luſty and young yeeres, or if old, yet healthful and unbruiſed, which you ſhall know by a good taſte, and a good pyzell; for if the haire of one or both be loſt, then he is a waſter, and he will be long in feeding. If you doe ſee the Oxe doth licke himſelfe all over, it is a good ſigne that he is Market able, and will feed, for he ſhews ſoundneſſe, and that the beaſt taketh a joy in himſelfe: yet whilſt he doth ſo licke himſelfe he feedeth not, for his owne pride hindreth him, and therefore the husband man will lay the Oxes owne dung upon his hide, which will make him leave licking, and fall to his food. Now if you goe to chooſe a fat beaſt, you ſhall handle his hindmoſt rib, and if it be ſoft and looſe, like Downe, then it ſhews the Oxe is outwardly well fed; ſo doth ſoft huckle bones, and a big nach, round and knotty: if his cod be big and full, it ſhewes he is well tallowed, and ſo doth the crop behind the ſhoulders: If it be a Cow, then handle her navell, and if that be big, round, and ſoft, ſurely ſhee is well tallowed. Many other obſervations there are, but they be ſo well knowne, and cõmon in every mans uſe, that they need no curious demonſtration.

To preſerve Cattell in health.

Now for the preſervation of theſe Cattell in good and perfect health, It ſhall be meet that for the young and luſty, and indeede generally for all ſorts, except Calves, to let them blood twice in the yeere, namely, the Spring and Fall, the Moone being in any of the lower Signes, and alſo to give them to drinke of the pickle of *Olives* mixed with a head of *Garlicke* bruiſed therein. And

for

for your Calves, be onely carefull that they goe not too ſoone to graſſe, and ſmall danger is to be feared. Now notwithſtanding all a mans carefulneſſe, beaſts daily doe get infirmities, and often fall into mortall extremities, peruſe therefore theſe Chapters following, and you ſhall finde cure for every particular diſeaſe.

CHAP. II.

Of the Feaver in Cattell.

CAttell are moſt ſubject unto a Feaver, and it commeth either from ſurfet of food, being raw & muſty, or from fluxe of cold humours ingendred by cold keeping. The ſignes are trembling, heavy eyes, a foaming mouth, and much groning: and the cure is; firſt, you ſhall let him blood, and then give him to drinke a quart of Ale, in which is boiled three or foure roots of *Plantaine*, and two ſpoonfulls of the beſt *London Treacle*, and let his Hay be ſprinkled with water. The cure.

CHAP. III.

Of any inward ſickneſſe in Cattell.

FOr any inward ſickneſſe or drooping in Cattell, take a quart of ſtrong Ale, and boile it with a handfull of *Wormwood*, and halfe a handfull of *Rew*; then ſtraine it, and adde to it two ſpoonfulls of the juyce of *Garlicke*, and as much of the juyce of *Houſeleeke*, and as much *London-Treacle*, and give it the beaſt to drinke, being no more but luke-warme.

CHAP. IIII.

Of all the diſeaſes in the head, as the Sturdy, or turning-vaill.

THis diſeaſe of the Sturdy, is knowne by a continuall turning a bout of the beaſt in one place; and the cure is, to caſt the beaſt, and having made his feet faſt, to ſlit the upper part of his forehead croſſe-wiſe, about foure The Cure.

inches

inches each way, then turning up the skin, and laying the skull bare, cut a piece out of the skull two inches square, or more: then looke, and next unto the panicle of the braine, you shall see a bladder lie full of water and blood, which you shall very gently take out, and throw away, then annoint the place with warme fresh Butter, turne downe the skin, and with a needle and a little red silke, stitch it close together, then lay on a hot plaister of Oile, Turpentine, Waxe, and a little Rozen melted together with Flaxe hurds, and so folding warme woollen clothes about the head, let the Beast rise, and so remaine three or foure dales ere you dresse it againe, and then heale it up like another wound, onely observe in this cure, by no meanes you touch the braine, for that is mortall, and then the helpe is both common, and most easie.

Chap. V.

Of diseases in the eyes of Cattell: as the Haw, a stroke, inflammation, weeping, or the Pin or Web.

For any generall soreneſſe in the eyes of Cattell, take the water of *Eye-bright*, mixt with the juyce of *Houſeleeke*, and waſh them therewith, and it will recover them: but if a Haw breed therein, then you ſhall cut it out, which every ſimple Smith can doe. But for a ſtroke, inflammation, Pin or Web, which breeds excreſſions upon the eyes: take a new laid Egge, and put out halfe the white, then fill it up with Salt, and a little Ginger, and roaſt it extreme hard in hot cinders: which done, beat it to pouder, ſhell and all; but before you roaſt it, wrap it in a wet cloth, and put of this pouder into the beaſts eye, and it will heale and cure it.

Chap.

Chap. VI.

Of diseases in the mouth: as Barbs under the tongue, Blaine on the tongue, teeth loose, or tongue venomed.

THese Barbs or Paps which grow under the tongues of Cattel, and being inflamed, do hinder them from feeding, you shall with a keene paire of shears cut away close by the flesh, and if they bleed much (as they will doe if they be ranke) you shall then with a red hot bodkin seare them, and drop on the top of the seared places a drop or two of Rozen and Butter mix'd together; but if they bleed not, then only rub them with Sage and Salt, and they will heale. Now for the Blaine on the tongue, of some called the Tin-blaine, it is a blister which groweth at the roots of the tongue, and commeth through heat of the stomach, and much chafing, and is oft very mortall, for it will rise so suddenly and so bigge, that it will stop the wind of the Beast. The cure is to thrust your hand into the mouth of the Beast, and drawing out his tongue, with your naile to breake the blister, and then to wash the sore place with strong brine, or Sage, Salt, and Water: if you find more blisters than one, breake them all, and wash them, and it is a present cure. Now for loose teeth, you shal let the beast blood in his gums, and under his taile, then wash his chaps, with Sage and Woodbine leaves, boil'd in brine: Lastly, if the tongue be venomed, which you shal know by the unnaturall swelling therof: you shall take Plantaine, and boiling it with Vinegar and Salt, wash the tongue therewith, and it will cure it. The cure.

Chap. VII.

Of diseases in the necke, as being galled, bruised, swolne, out of joynt, or having the Closhe.

IF any Oxes necke be galled, bruised, or swollen with the yoake, take the leaves of round *Aristolochia*, and beating

ting them in a Mortar, with Tallow, or fresh Grease, annoint the sore place therewith, and it will not only heale it, but any straine in the neck, even if the bone be a little disordered. Now for the *Closhe* or *Clowse*, which causeth a beast to pill and loose the haire from his necke, and is bred by drawing in wet and rainy weather: you shall take the ashes of an old burn'd shooe, and strew it upon the necke, and then rub it over with *Tallow* and *Turpentine* mixt together.

Chap. VIII.

Of the Pestilence, Gargill, or Murraine in Beasts.

THis Pestilence or Murraine amongst Beasts, is bred by divers occasions; as from rankenesse of blood, or feeding; from corruption of the aire, intemperateneſſe of the weather, inundation of floods, or the infection of other *Cattell*: much might be said of the violence and mortality thereof, which hath utterly unfurnished whole *Countries*: but to goe to the cure, you shall give to all your *Cattell*, as well the sound as sicke, this medicine, which never failed to preserve as many as have taken it: Take of old Urine a quart, and mixe it with a handfull of Hens dung dissolv'd therein, and let your beast drinke it.

The cure.

Chap. IX.

Of the misliking or leanneſſe of Beasts.

IF your Beast fall into any unnaturall mislike or leanenesse, which you shall know by the discolouring of his haire: you shall then cause him first to be let blood, and after take sweet Butter, and beat it in a Mortar, with a little *Myrrhe*, and the shaving of *Ivory*, and being kept fasting, make him to swallow downe two or three balls therof: and if it be in the winter, feed him with sweet Hay, if in the Summer, put him to grasse.

Chap.

Chap. X.

Of the disease in the Guts: as Fluxe, Costiveesse, Cholicke, and such like.

IF your beast be troubled with any sore Laxe, or Bloody-fluxe, you shall take a handfull of the seeds of *Wood-rose*, and being dried and beaten to powder, brew it with a quart of strong *Ale*, and give it the beast to drink. But if he be too dry or costive in his body, then you shall take a handfull of *Fennegreeke*, and boile it in a quart of *Ale*, and give it him to drinke, but for any cholicke or belly-ake, or gnawing of the guts, boile in the water which hee drinketh good store of oile, and it will helpe him.

Chap. XI.

Of pissing of Blood.

IF your beast pisse blood, which commeth either of over-labouring, or of hard and sower feeding, you shall take *Shepherds-purse*, and boile it in a quart of red *Wine*, and then straine it, and put to it a little *Cynamon*, and so give it the beast to drinke.

Chap. XII.

Of dropping nostrills, or any cold in the head.

IF your beasts nostrills run continually, which is a signe of cold in the head; you shall take *Butter* and *Brimstone*, and mixing them together, annoint two *Goose-feathers* therewith, and thrust them up into the nostrills of the beast: and use thus to doe every morning till they leave dropping.

Chap. XIII.

Of any swelling in a beast whatsoever.

IF your beast have any outward swelling, bathe it with *Oile* and *Vineger* exceeding hot, and it will asswage it:

but if the ſwelling be inward, then boile round *Ariſtolochia* in his water.

Chap. XIIII.

Of the worme in the taile.

THere is a worme which will breede in the taile of a beaſt, and doth not onely keepe him from feeding, bnt alſo eateth away the haire of the taile, and diſfigureth the beaſt. The cure is, to waſh the taile in ſtrong Lye, made of *Vrine* and *Aſh-wood-aſhes*, and that will kill the worme, and alſo heale and dry up the ſore.

The Cure.

Chap. XV.

Of any cough, or ſhortneſſe of breath in Cattell.

IF your beaſt be troubled with the cough, or ſhortneſſe of breath, you ſhall give him to drink divers mornings together, a ſpoonfull or two of *Tarre* diſſolv'd in a quart of new *Milke*, and a head of *Garlick* cleane pild & bruiſed.

Chap. XVI.

Of any Impoſtume, Bile, or Botch in a Beaſt.

IF your beaſt be troubled with any Impoſtume, Bile, or Botch, you ſhall take *Lilly* roots, and boile them in *Milke* till they be ſoft, ſo that you may make them like pap, then being very hot, clap it to the ſore, and then when it comes to be ſoft, open it with a hot iron, and let out the filth, then heale it up with *Tarre*, *Turpentine*, and *Oyle* mix'd together.

Chap. XVII.

Of diſeaſes in the ſinewes: as weakneſſe, ſtiffneſſe, or ſoreneſſe.

IF you find by the unnimble going of your beaſt, that his ſinewes are weake, ſhrunke or tender: Take *Mallowes* and *Cheekweed*, and boile them in the dregges of *Ale*, or in *Vinegar*, and being very hot, lay it to the offended

offended member, and it will comfort the ſinewes.

Chap. XVIII.

Of the generall Scab, particular Scab, Itch or Scurfe in Cattell.

IF your beaſt be troubled with ſome few ſcabs, here and there on his body, you ſhall only rub them off, and annoint the place with blacke *Sope* and *Tarre* mix'd together, and it will heale them. But if the ſcab be univerſall over the body, and the ſcabs mix'd with a dry ſcurfe, then you ſhall firſt let the beaſt blood, after rub off the ſcabs and ſcurfe till the skin bleed, then waſh it with old *Vrine* and greene *Copporas* together, and after the bathing is dry, anoint the body with *Bores-greaſe* and *Brimſtone* mingled together.

Chap. XIX.

Of the hide bound, or dry skin in Cattell.

THis griefe commeth of over-much labour and evill keeping, and above all other beaſts your *Lincolne-ſhire* Oxen are ſubject unto it, the ſignes are a diſcolored and hard skin, with much leanneſſe: The cure is, to let him blood, and to give him to drinke a quart of good ſtrong *Ale* brewed with *Myrrhe* and the powder of *Bay-berries*, or for want of *Berries*, the *Bay-tree leaves*, and then keepe him warme, and feed him with Hay that is a little Mow-burn'd, and only looketh red, but is not duſty or moldy, for that will get him an appetite to drinke, and drinking will looſen his skin. The cure.

Chap. XX.

Of the diſeaſes in the Lungs, eſpecially the Lung-growne.

THe Lungs of a beaſt are much ſubject to ſickneſſe, as may appeare by much panting, and ſhortneſſe of breath, the ſignes being a continuall coughing, but that

which is before prescribed for the Cough, will cure all these, onely for a beast which is Lung-growne, or hath his lungs growne to his side, which commeth through some extreme drought taken in the Summer season, and is knowne by the cough, hoarse, or hollow coughing, you shall take a pinte of *Tanners Oze*, and mixe it with a pinte of new milke, and one ounce of browne *Sugar-candy*, and give it the Beast to drinke, this hath beene found a present cure: Or to give him a ball as big as a mans fist of Tarre and Butter mixt together, is a very certaine cure.

Chap. XXI.

Of biting with a mad dog, or of any other venemous beast.

IF your Beast bee bitten with a mad-dogge, or any other venemous Beast, you shall take *Plantaine*, and beate it in a morter with *Bolearmoniake*, *Sanguis draconis*, Barley meale, and the whites of Egges, and plaister wise lay it unto the sore, renewing it once in fourteene houres.

Chap. XXII.

Of the falling downe of the pallate of a beasts mouth.

LAbour and drought will make the pallate of a Beasts mouth to fall downe, which you shall know by a certaine hollow chanking in his mouth, when he would eate, also by his sighing, and a desire to eate but cannot.

The cure. The ordinary cure is, you shall cast the Beast, and with your hand thrust it up, then let him bloud in the pallate, and annoynt it with hony and salt: and then put him to grasse, for he may eate no dry meate.

CHAP.

Chap. XXIII.

Of any griefe or paine in the hoofe of a beaſt, and of the Foule.

TAke *Mugwort*, and beat it in a Mortar with hard *Tallow*, and apply it to the hoofe of the Beaſt, and it will take away any griefe whatſoever. But if he be troubled with that diſeaſe which is called the *Foule*, and commeth moſt commonly by treading in mans ordure, breedeth a foreneſſe and ſwelling betweene the cleyes, you ſhall for the cure, caſt the beaſt, and with a Hay-Rope rub him ſo hard betweene the ſame, that you make him bleed, then anoint the place with *Tarre*, *Turpentine*, and *Kitching-fee*, mixt together, and keepe him out of the dirt, and he will ſoone be whole. The cure.

Chap. XXIIII.

Of bruiſings in generall, on what part of the body ſoever they be.

TAke *Brookelime* the leſſe, and frie it with *Tallow*, and ſo hot lay it to the bruiſe, and it will either expell it, or elſe ripen it, breake it, and heale it, as hath beene often approved.

Chap. XXV.

Of ſwallowing downe Hens-dung, or any poiſonous thing.

IF your beaſt have ſwallowed down Hens-dung, Horſe-leeches, or any other poiſonous thing, you ſhall take a pint of ſtrong *Vineger*, and halfe ſo much *Oile*, or ſweete *Butter*, and two ſpoonfulls of *London-Treacle*, and mixing them together on the fire, give it the beaſt warme to drinke, and it will cure him.

Chap. XXVI.

Of killing Lice or Tickes.

BEaſts that are bred in Woods under droppings of trees, or in barren and unwholeſome places are much

subject to Lice, Tickes, and other Vermine. The cure
The cure. whereof is to anoint their body with fresh *Greese*, *Pepper*, *Staveſaker*, and *Quickeſilver*, beaten together untill the *Quickeſilver* be ſlaine.

Chap. XXVII.

Of the Dewbolne, or generall Gargill.

HOwſoever ſome of our *Engliſh* Writers are opinioned, this *Dewbolne*, or generall *Gargill* is a poiſonous and violent ſwelling, beginning at the neather part of the *Dewlap*, and if it be not prevented, the ſwelling will aſcend upward to the throat of the beaſt, and then it is incurable: therefore for the preſervation of your beaſt, as ſoone as you ſee the ſwelling appeare, caſt the beaſt, and ſlit the ſwell'd place of the *Dewlap* at leaſt foure inches in length; then take a handfull or two of *Speare-graſſe*, or *Knot-graſſe*, and thruſting it into the wound, ſtitch it up cloſe, then anoint it with *Butter* and *Salt*, and ſo let it rot and weare away of it ſelfe: if you perceive that his body be ſwell'd, which is a ſigne that the poiſon is diſpers'd inwardly, then it ſhall be good to give him a quart of *Ale* and *Rew* boil'd together, and to chafe him up and downe well, both before and after.

Chap. XXVIII.

Of the loſſe of the Cud.

A Beaſt wil many times through careleſneſſe in chewing, loſe his Cud, and then mourne and leave to eat:
The cure. The certaine cure whereof is, to take a little ſowre *Leaven* and *Salt*, and beating it in a Mortar with mans *Vrine* and *Lome*, make a pretty bigge ball, and force him to ſwallow it downe, and it will recover his Cud.

Ca-

Chap. XXIX.

Of killing of all sorts of wormes either in the Oxe, Cow, or Calfe.

THere is nothing killeth Wormes in the bodies of cattell sooner than *Sope* chop'd small, and beaten with sweet *Butter*, and so given in round balls to the beast, nor any thing maketh them voide them so soone as sweete *Wort*, and a little blacke *Sope* mixt together, and given the Beast to drinke. The cure.

Chap. XXX.

Of the vomitting of blood.

THis disease commeth through rankenesse of blood, got in fruitfull pastures after hard keeping, insomuch that you shall see the blood flow from their mouthes. The cure is, first to let the beast blood, and then give to drinke *Bolearmoniake* and *Ale*, mixt together.

Chap. XXXI.

Of the Gout in Cattell.

IF your beast be troubled with the Gout, which you shall know by the sudden swelling of his joynts, and falling againe, you shall take *Galingall*, and boile it in the dregs of *Ale* and sweet *Butter*, and pultis-wise lay it to the offended member.

Chap. XXXII.

Of wilting of a Beast.

MIlting, is when a Beast will oft fall, and oft rise, as he is at his labour, and cannot indure to stand any while together: it proceedes from some stroke or bruise either by cudgell or other blunt weapon: And the cure is, not to raise him suddenly, but to give him *Ale* and some stone *Pitch* mixt very well together to drinke. The cure.

Chap. XXXIII.

Of provoking a beast to pisse.

IF your beast cannot pisse, steepe *Swallage*, or the roots of *Raddish* in a quart of *Ale*, and give it him to drinke, and it presently helpeth.

Chap. XXXIIII.

Of the over-flowing of the gall in beasts.

THe over-flowing of the Gall, is ever knowne by the yellownesse of the skin and the eyes of the beast: And the cure is, to give him a quart of *Milke*, *Saffron* and *Turmricke* mix'd together, to drinke after he hath beene let blood, and so doe three mornings together.

The cure.

Chap. XXXV.

Of a beast that is goared, either with a stake, or the horne of another beast.

TAke *Turpentine* and *Oile*, and heat them on the coales, and then taint the wound therwith, and it will heale it.

Chap. XXXVI.

Of a Cow that is whetherd.

THis disease is, when a Cow after her calving cannot cast her cleaning, and therefore to compell her to cast it, you shall take the juyce of *Eeltony*, *Mugwort*, and *Mallowes*, of each three spoonfulls, and mixe it with a quart of *Ale*, and give it the beast to drinke: and also give her to eate scorched *Barley*, and it will force her to avoid her burthen suddenly.

Chap. XXXVII.

Of drawing out thornes or stubs.

TAke blacke *Snailes* and blacke *Sope*, and beat them to a salve, and apply them to the sore, and it will draw the griefe to be apparant.

Chap.

CHAP. XXXVIII.

Of purging of Cattell.

THere is nothing doth purge a beast so naturally, as the green weedy grasse which groweth in Orchards under trees; nor any medicine doth purge them better than *Tarre*, *Butter*, and *Sugarcandy*, mixt together, and given in balls as big as an Hens-egge.

CHAP. XXXIX.

Of being Shrew-run, or Shrew-bitten.

A Shrew Mouse, which is a Mouse with short uneven legs, and a long head, like a Swines, is a venemous thing, and if it bite a beast, the sore will swell and rankle, and put the beast in danger; but if it onely runne over a beast, it feebleth his hinder parts, and maketh him unable to goe: the cure then for being Shrew-bitten, is the same which is formerly shewed for the biting of other venemous beasts: but if hee be Shrew-run, you shall onely draw him under, or beat him with a Bramble which groweth at both ends in the Furrowes of Corne lands. The cure.

CHAP. XL.

Of faintnesse in labour.

IF your Beast in his labour, and heat of the day, change to faint, you shall loose him, and drive him to the running streame to drinke, and then give him 2 or 3 *Ospines* full of parch'd *Barley* to eat, and he wil labor fresh againe.

CHAP. XLI.

Of breeding Milke in a Cow.

IF your Cow after her calving cannot let downe her Milke, you shall give her a quart of strong posset-*ale*, mix'd with *Anne-seeds*, and *Coliander-seeds*, beaten to

to powder, to drinke every morning, and it will not onely make her milke ſpring, but alſo increaſe it wonderfully.

CHAP. XLII.

Of bones out of joynt, or bones broken.

IF any beaſt have a bone broken, or miſ-placed, after you have ſet it right, and in his true place; you ſhall wrap a plaiſter about it, made of *Burgundy-pitch*, *Tallow*, and *Linſeed-oile*, and then ſplent it, and let it remaine unbound fifteene daies, and it will doe it much good.

CHAP. XLIII.

Of the rot in Beaſts.

IF your beaſt be ſubject to rottenneſſe, which you may know by his leanneſſe, miſlike, and continuall ſcouring behind: you ſhall take *Bay-berries*, beaten to powder, *Negrike*, *Ivie-leaves*, *Elder-leaves* and *Feather-few*, a good lumpe of drie *Clay* and *Bay-ſalt*, mixe theſe together in ſtrong *Vrine*, and being warme, give the beaſt halfe a pint thereof to drink, and it will knit and preſerve them.

CHAP. XLIIII.

Of the Pantas.

THe *Pantas* is a very faint diſeaſe, and maketh a beaſt to ſweat, ſhake, and pant much. The cure is, to give him in *Ale* and *Vrine*, mixt together, a little *Soote*, and a little earning to drinke, two or three mornings before you labour him.

The Cure.

CHAP. XLV.

Of all manner of wounds in Beaſts.

TO cure any wounds in Beaſts given by edge-tooles, or otherwiſe, where the skinne is broke, take *Hog-greaſe*, *Terre*, *Turpentine*, and *Waxe*, of each a like quan-

tity,

city, and a quarter ſo much *Verdigreeſe*, and melt them all together into one ſalve, and apply it to the wound, by ſpreading it upon a cloth, and it will heale it without any ranke, or dead fleſh.

The end of the Bull, Oxe, Cow, and Calfe.

Of Sheepe.

CHAP. I.

Of sheepe in generall, their uſe, choice, ſhape and preſervation.

I enter into any longer diſcourſe of praiſe or profit of Sheepe, or to ſhew my Reading by relations of the Sheepe of other Countries were frivolous, becauſe I am to write much in a very little Paper: and I ſpeake onely to my Countrey-men the *Engliſh*, who deſire to learne and know their owne profit. Know then, that whoſoever will ſtocke himſelfe with good Sheepe, muſt looke into the nature of the ſoile in which he liveth: For Sheepe according to the Earth and Aire in which they live, doe alter their natures and properties: the barren Sheepe becomming good, in good ſoiles, and the good Sheepe barren in evill ſoiles. If then you deſire to have Sheepe of a curious fine ſtaple of Wooll, from whence you may draw a thread as fine as ſilke, you

ſhall

shall see such in *Hereford-shire*, about *Lempster* side, and other speciall parts of that Countrey; in that part of *Worster-shire*, joyning upon *Shrop-shire*, and many such like places, yet these Sheepe are very little of bone, black faced, and beare a very little burthen. The Sheepe upon *Cotsall* hills, are of better bone, shape and burthen, but their staple is courser and deeper. The Sheepe in that part of *Worster-shire*, which joyneth on *Warwick-shire*, and many parts of *Warwick-shire*, all *Leicester-shire*, *Buckingham-shire*, and part of *Northampton-shire*; and that part of *Nottingham-shire*, which is exempt from the Forrest of *Sherwood*, beareth a large boned Sheepe, of the best shape and deepest staple; chiefly, if they be Pasture-Sheepe; yet is their Wooll courser than that of *Cotsall*. *Lincolne-shire* especially in the salt Marshes, have the largest Sheepe, but not the best Wooll, for their legges and bellies are long and naked, and their staple is courser than any other. The Sheepe in *York-shire*, and so Northward, are of reasonable bigge bone, but of a staple rough and hairie; and the Welsh-Sheepe are of all the worst, for they are both little, and of worse staple; and indeed are praised onely in the dish, for they are the sweetest Mutton.

Of the choice of Sheepe.

If now, knowing the natures and properties of the Sheepe of every Country, you goe about to stocke your ground, be sure to bring your Sheepe from a worse soile to a better, and not from a better to a worse.

Of the Leare.

The Leare, which is the earth on which a Sheepe lyeth, and giveth him his colour, is much to be respected: the red Leare is held the best, the duskish, inclining to a little rednesse, is tolerable, but the white or dirty Leare starke naught. In the choice therefore of your Sheepe, choose the biggest boned, with the best wooll, the staple

being

being ſoft, greaſie, well curled, & cloſe together, ſo that a man ſhall have much a doe to part it with his fingers. Theſe ſheep beſides the bearing of the beſt burthen, are alwaies the beſt Butchers ware, and goe ſooneſt away in the Market. Therefore, in the choiſe of Sheepe for your breed, have a principall reſpect to your Rammes, for they ever marre or make a flock: let them then as neere as you can have theſe properties or ſhapes. First, large of body in every generall part, with a long body, and a large belly; his forehead would be broad, round, and well riſing; a cheerfull large eye, ſtreight ſhort noſtrills, and a very ſmall muzell; by no meanes any hornes, for the dodder Sheep is the beſt breeder, and his iſſue never dangereth the Damme in yeaning, as the horned Sheepe doe: beſides, thoſe Sheepe which have no hornes, are of ſuch ſtrength of head, that they have oft beene ſeene to kill thoſe ſheepe which have the largeſt hornes and beſt wrinkled: a Sheepe would have a large upright necke, ſomewhat bending like the neck of a horſe, a very broad backe, round buttocks, a thicke taile, and ſhort jointed legs, ſmall, cleane and nimble, his wooll would be thicke, and deepe, covering his belly all over; alſo, his face, and even to his noſtrils, and ſo downwards to his very knees and hinder houghes. And thus according to the ſhape, properties and ſoile, from whence you chooſe your Rams, chooſe the reſt of your flocke alſo.

The shape of Sheepe.

The beſt time for your Ewes to bring forth their yong ones is, if they be Paſture-ſheepe, about the latter end of *April*, and ſo untill the beginning of *June*; but if they be Field-ſheepe, then from the beginning of *Ianuary*, till the end of *March*, that their Lambs may be ſtrong and able before *May*-day, to follow their Dams over the rough Fallow lands, and water furrowes, which weake

When Ewes ſhould bring forth.

Lambes

Lambes are not able to doe; and although to yeane them earely in the Winter, when there is no graſſe ſpringing, and the ſharpneſſe of the weather alſo be dangerous, yet the Husband-man muſt provide ſhelter and ſweet fodder, and the Shepherd with great vigilance be ſtirring at all houres to prevent evills, for the reaſons before ſhewed: and though the Ewe at the firſt be ſcant of Milke, yet as the warme weather increaſeth, and the graſſe beginneth to ſpring, ſo will her Milke ſpring alſo.

Ordering of Lambes.

Now for your Lambes: about *Michaelmas* you ſhall ſeparate the male from the female; and having choſen out the worthieſt, which you meane to keepe for Rams, put them aſide, and then geld the reſt, which every orderly Shepherd can doe ſufficiently, for there is no danger in gelding yong Lambs. The firſt yeere a male Lamb is called a weather-Hog, and a female Lambe an Ewe-Hog: the ſecond yeere the male is a Weather, and the female a Theafe, and then ſhee may be put to the Ram; but if you let her goe over that yeere alſo, then ſhee is a double Theafe, and will both her ſelfe be the goodlier Sheep, and alſo bring forth the goodlier Lambe; whence it comes, that the beſt Sheepe-maſters make more account of the double Theafe, than of any other breeder.

Needfull obſervations.

You ſhall obſerve never to ſheare your Lambes, till they be full Hogs: you ſhall ever waſh three daies before you ſheare: the beſt time of ſhearing is from *June* to *Auguſt*, Ewes are ever good breeders from three yeeres old, till their mouths breake. If you would have your Ewes bring forth male Lambes, note when the North-wind bloweth, and driving your Flock againſt the wind, let your Rammes ride as they goe, and this will make the Ewes to conceive male Lambes: ſo likewiſe, if you would have female Lambes, put your Rammes

to

to the Ewes when the wind bloweth out of the South.

Now for the generall preſervation of Sheepe, feede them as much as you can upon high grounds, which are dry and fruitfull, the graſſe ſweet, yet ſo ſhort that it muſt be got with much labour: but if you muſt force perforce feed upon low and moiſt grounds which are infectious, you ſhall not bring your Sheepe from the Fold (for I now ſpeake to the honeſt *Engliſh Husband-man*) untill the Sunne be riſen, and that the beames begin to draw the dew from the earth; then having let them forth, drive them to their place of feede, and there, with your Dog, chaſe them up and downe till they be weary, and then let them either feed or take their reſt, which they pleaſe: this chaſing, firſt, beateth away mill-dewes, and all other dewes from the earth; as alſo thoſe webs, kells, and flakes, which lying on the earth, and a Sheep licking them up, doe breed rottennеſſe: alſo this chaſing ſtirreth up that naturall heat in a Sheepe, which drinketh up, and waſteth the abundance of moiſture, which elſe would turne to rottenneſſe. Beſides, a Sheepe being thus chaſed and wearied, will fall to his food more deliberately, and not with ſuch greedineſſe as otherwiſe hee would, and alſo make choice of that meate which is beſt for his health. If a Shepherd once in a moneth, or alwaies when he hath occaſion to handle his Sheepe, rub their mouthes with *Bay ſalt*; it is an excellent preſervation againſt all manner of ſickneſſe, and very comfortable for a Sheepe alſo; for a Sheepe will very well live, and abate of his fleſh by rubbing his mouth once a day with *Bay ſalt* onely. Now for as much as notwithſtanding theſe Principles, a Sheepe falleth into many infirmities, hereafter followeth the ſeverall cures of all manner of diſeaſes.

CHAP.

Chap. II.

The signes to know a sound Sheepe, and an unsound Sheep.

IF a Sheep be sound and perfect, his eye will be bright and cheerefull, the white pure without spot, and the strings red, his gums also will be red, his teeth white and even, his skin on his brisket will be red, and so will each side betwixt his body and his shoulders where Wooll growes not, his skin in generall will be loose, his Wooll fast, his breath long, and his feet not hot; but if hee be unsound, then these signes will have contrary faces, his eyes will be heavie, pale and spotted, his breast and gums white, his teeth yellow and foule, his Wooll when it is pulled, will easily part from his body; and when hee is dead, open him, and you shall find his belly full of water, his Fat yellow, his Liver putrefied, and his flesh moist and watrish.

Chap. III.

Of sickenesse in generall, or of the Feaver amongst Sheepe.

CHange of Pasture is a great cure for sicke Sheep, yet if you find any more particularly troubled than the rest: Take *Puliol* royall, and stamping it, mixe the juyce with *Water* and *Vinegar*, the quantity of halfe a pint, and give it the Sheepe with a horne luke-warme; and by no meanes let the Sheep be much chaf'd: also in these sicknesses the Shepherd must have a great care to note from whence the disease growes, if it proceed from cold, then to drive his Sheepe to shelter, if from heat, then to feed them in shady and coole places.

Chap. IIII.

Of the generall Scab or Itch in Sheepe.

THis generall Scab or Itch in Sheepe, is of all diseases the most common among them, proceeding from

rainy

rainy and wet weather, which falling upon their skins, if they happen to be chaft or heated after, they presently breake forth into the scabs, which you shall know by a white filthy scurfe sticking upon their skins: and the most usuall medicine for the same, which all Shepherds use, is to anoint the place with *Tarre*, and *Greese*, mix'd together, but if upon the first appearance of the Itch, you steep *Poliol-royall* in Water, and wash the skin therewith, it will preserve them from running into the scab.

Chap. V.

Of killing Maggots in Sheepe.

IF a Sheepe be troubled with Maggots, you shall take *Goose-greese*, *Tarre*, and *Brimstone*, and mixe them together on the fire, and then anoint the place therewith, and it will kill the Maggots.

Chap. VI.

Of the red Water.

THe red Water is a poisonous disease in Sheepe, offending the heart, and is, indeed, as the pestilence amongst other Cattell: therefore when you find any of your Sheepe infected therewith, you shall first let him blood in the foot, betweene the clawes, and also under the taile, and then lay to the sore places *Rew* or *Wormwood* beaten with *Bay salt*, and it helpeth.

Chap. VII.

Of Lung-sicke, or any cough or cold.

IF your Sheepe be troubled with any sickenesse in his Lungs, which you shall know by his coughing and shortnesse of breath, you shall take *Tussilago*, or *Coltsfoot*, and *Lungwort*, and stamping them, straine the juyce into a little *Honey* and *Water*, and give it the Sheepe to drinke.

Chap. VIII.

Of the Worme in the Claw of the Sheep, or any other part.

THis Worme breedeth commonly before, betweene the clawes of the foot: but whereſoever it breedeth, it is knowne by the head, which is like a tuft of haire, and will ſticke forth in a bunch. The cure is, to ſlit the foot, and draw out the worme without breaking it; and then annoint the place with *Tarre*, and *Tallow* mix'd together, for *Tarre* ſimply of it ſelfe will draw too much.

The cure.

Chap. IX.

Of the wild fire in Sheepe.

THis diſeaſe which is called the *Wild-fire*, is a very infectious ſickneſſe, and will indanger the whole flock; but howſoever incurable it is held, yet it is certaine, that if you take *Chervile*, and ſtamping it with old *Ale*, make ſalve thereof, and annoint the ſore therewith, it will kill the fire, and ſet the Sheepe ſafe: and, though ſome, for this diſeaſe, bury the firſt infected Sheepe alive, with his heeles upward, before the Sheep-coat doore, yet this medicine hath beene ever found more effectuall.

Chap. X.

Of the diſeaſes of the Gall: as Choler, Iandiſe, and ſuch like.

THeſe diſeaſes are knowne by the yellowneſſe of the Sheepes: kin: and the cure is, to take *Plantaine* and *Lettice*, and ſtamping them together, mix their juyce with *Vinegar*, and give halfe a pinte to a Sheepe to drinke.

The cure.

Chap. XI.

Of the tough Phlegme, or ſtopping in Sheepe.

IF your Sheepe be ſtopt in the head, breaſt, or weſſand, or ſicke with rough phlegme, or other cold humours, which you ſhall know by the running of the noſtrills,

then

then take the powder of *Pulioll-royall*, and mixing it with clarified *Honey*, dissolve it in warme water, the quantity of halfe a pint, and give it the Sheepe to drinke, and it will loosen the phlegme.

CHAP. XII.

Of broken bones in Sheepe, or bones out of joynt.

IF your Sheep chance to breake a leg, or have any other bone mis-placed, you shall after you have set it streight and right againe: first bathe it with *Oile* and *Wine*, and then dipping a cloth in molten *Rash-greese*, roll it about, and splint it as occasion shall serve, and so let it remaine nine daies, and dresse it againe, and at the end of the next nine daies, the Sheepe will be able to goe.

CHAP. XIII.

Of any sickenesse in Lambes.

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IF your Lambe be sicke, you shall give it *Mares milke*, or *Goats-milke*, or the owne Dams *milke* mixed with *Water* to drinke, and keepe it very warme.

The cure.

CHAP. XIIII.

Of the Sturdy, Turning-evill, or More-found.

THese diseases proceed from rankenesse of blood, which offendeth the braine, and other inward parts. The cure then is, to let the Sheepe blood in the eye veines, temple veines, and through the nostrills, then to rub the places with young *Nettles* bruised.

The cure.

The cure,

CHAP. XV.

Of diseases in the eyes: as the Haw, dimnesse, or any sorenesse.

IF your Sheepe have any imperfection in his eyes, you shall drop the juyce of *Celandine* into them, and it is a present help.

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Chap. XVI.

Of water in a Sheepes belly.

IF a Sheepe have water in his belly, betweene the outward flesh and the rim, then you may safely adventure to let it forth by making a little hole thorow the flesh, and putting in a quill, but if it be betweene the rim & the bag, then it is incurable, for you may by no meanes cut the rim asunder: When the water is let forth, you shall stitch up the hole, and anoint it with *Tarre* and *Butter* mix'd together. This water if it remaine in the body, will rot the Sheepe.

Chap. XVII.

Of the tagg'd or belt Sheepe.

A Sheepe is said to be tagg'd or belt, when by a continuall squirt running out of his ordure, hee berayeth his taile, in such wise, that through the heat of the dung it scaldeth, and breedeth the scab therein. The cure is with a paire of sheares to cut away the tags, and to lay the sore bare and raw, and then to throw earth dried upon it, and after that, *Tarre* and *Goose-greese* mixt together.

The cure.

Chap. XVIII.

Of the Poxe in Sheepe.

THe Poxe in Sheepe and small red pimples like purples rising on the skin, and they are infectious. The cure is, to take *Rosemary*, and boile the leaves in *Vinegar*, and bathe the sores therewith, and it will heale them: change of pasture is good for this disease, and you shall also separate the sicke from the sound.

The cure.

Chap. XIX.

Of the Wood-evill or Crampe.

THis disease is weaknesse, or straining of the sinewes got by colds and surfeits: it is very mortall, and will

run through a whole flock. The cure is to take *Cinkefoile*, or *Five-leaved graſſe*, and boile it in *Wine*, and give the Sheepe a pint thereof to drinke, and keepe him warme, and chafe his legs with *Oile* and *Vinegar*. The Cure.

CHAP. XX.

Of making an Ewe to love her owne Lambe, or any other Ewes Lambe.

IF an Ewe grow unnaturall, and will not take to her Lamb after ſhe hath yeaned it, you ſhall take a little of the cleane of the Ewe, which is the bed in which the Lambe lay, and force the Ewe to eate it, or at leaſt chew it in her mouth, and ſhe will fall to love it naturally: but if an Ewe have caſt her Lambe, and you would have her take to another Ewes Lambe, you ſhall take the Lambe which is dead, and with it rub and daube the live Lambe all over, and ſo put it to the Ewe, and ſhe will take as naturall to it, as if it were her owne.

CHAP. XXI.

Of licking up poiſon.

IF a Sheepe chance to lick up any poiſon, you ſhall perceive it by a ſudden ſwelling and reeling of the Sheep. And the cure is, as ſoone as you ſee it ſtagger, to open the mouth, and you ſhall find one or more bliſters upon the tongue roots, you ſhall preſently breake them with your fingers, and rub them with *Earth* or *Sage*, and then piſſe into the Sheepes mouth, and it will doe well. The cure.

CHAP. XXII.

Of Lambes yeaned ſicke.

IF a Lamb be yeaned ſick and weak, the Shepherd ſhall fold it up in his Cloake, blow into the mouth of it, and then drawing the Dams dugs, ſquirt milk into its mouth.

Chap. XXIII.

Of making an Ewe to be easily deliuered.

IF an Ewe can hardly bring forth or yeane her Lambe, you shall take *Balsamint* or *Horse-mint*, and put either the juyce or powder of it into a little strong *Ale*, and give it the Ewe to drinke, and she will yeane presently.

Chap. XXIIII.

Of Teeth loose.

IF a Sheepes teeth be loose, let him blood in his gums, and under his taile, and then rub his teeth with *Earth*, *Salt*, and *Sage*.

Chap. XXV.

Of increasing Milke in Ewes.

NOthing increaseth Milk in Ewes more than change of Pasture and feeding: driving them one while unto the Hills, another while to the Vallies: and where the Grasse is sweetest and short, the Sheepe eateth with best appetite, there see you continue longest: for touching giving them *Fitches*, *Dill*, *Annis seeds*, and such like, this change of ground will make milke spring much better.

Chap. XXVI.

Of the Staggers, or Leafe-sickenesse in Lambs, or elder Sheepe.

THe Staggers is ingendred in Sheepe by surfeiting on *Oke leaves*, *Hawthorne leaves*, or such like, which Lambes are very apt unto: it is cold corrupt blood, or phlegme, gathered together about the braine: and indeed is suddenly mortall. The best cure is, to take *Asafetida*, and dissolve it in warme water, and put the quantity of halfe a spoonfull into each eare of the Sheepe, or Lambe, and it is a present remedy.

The cure.

Chap.

Chap. XXVII.

Of Wormes in the guts of Sheepe or Lambes.

SHeepe are as subject to wormes in their guts and stomaches, as any other Cattell whatsoever, which you shall know by beating their bellies with their feet, and by looking continually at their bellies. The cure is, to take the leaves of *Coliander*, and to stamp them, and then mixing the juyce thereof with *Honey*, to give the Sheepe to drinke, and then chase him a little, and keepe him two or three houres fasting. The cure.

Chap. XXVIII.

Of the losse of the Cudde.

THat which helpeth the losse of the Cud in Oxe, or Cow, the same is a present remedy for Sheepe, and is spoke of before in a former Chapter.

Chap. XXIX.

Of saving Sheepe from the Rot.

THis disease of rottennesse, is the cruellest of all other amongst Sheep, and extendeth his violence over all the Flocke: nay, over Townships and Countries: and though it be held of most men incurable, yet good Government, and this Receite I shall deliver you, will not onely prevent it, but preserve your Sheepe safe: Therefore, as soone as you perceive that any of your Sheepe are tainted, you shall take *Adraces*, which is a certaine salt, gathered from the salt Marches, in the heat of Summer, when the tide is going away, and leaving certaine drops of salt water on the grasse, then the violent heat of the Sunne turnes it to salt: and to speake briefely, all salt made by the violence of the Sunnes heat onely, is taken for *Adraces*, of which there is infinite store in *Spaine*. With this *Adraces*, rub the mouths of all your Sheepe once a weeke, and you shall never need to feare

the rotting of them, for it hath beene well tried: and as I imagine, the experiment was found out from this very ground. It is a rule, and well knowne at this day in *Lincolnshire*, and in *Kent*, that upon the salt Marshes sheepe did never die of the rot: no other reason being knowne therefore, but the licking up of that salt, and without doubt, it is most infallible, and most easie.

Chap. XXX.

A few Precepts for the Shepherd.

IT is meet that every good and carefull Shepherd know what food is good for sheepe, what hurtfull: that following the one, and eschewing the other, hee may ever keepe his Cattell in health. The grasse that is most wholesome for sheepe, is that which hath growing in it good store of *Mellilot*, *Clover*, *Selfe-heale*, *Cynkefoile*, *Broome*, *Pimpernell*, and white *Hemband*.

The grasse which is unwholesome for sheepe, is that which hath growing amongst it *Speare-wort*, *Pewit weed*, or *Pewit-grasse*, and any *weed* which growes from inundations, or over-flowes of water; likewise *Knot-grasse* is not good, nor *Mildew'd-grasse*. Of all rots the *Hunger-rot* is the worst, for it both putrefieth the flesh and skin, and this is most incident to field-sheep, for to pasture-sheep it never happeneth. The next rot to it, is the *Pelt rot*, which comes by great store of raine, immediatly after a Sheep is new shorne, which *mildewing* the skin, corrupts the body; and this also is most incident to field-sheepe, which want shelter. There be little white *Snailes* which a sheepe will licke up, and they will soone rot him.

There will grow upon an Ewes Teats little dry scabs, which will stop their milke; when the Lambs sucke, the Shepherd must have care to pull them away.

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A Sheepe will have a bladder of water under his chin sometimes, which the Shepherd muſt be carefull to let out and lance, or the Sheepe will not proſper.

It is good not to ſheare Sheepe before *Midſummer*, for the more he ſweateth in his wooll, the better, and more kindly it is.

If you will know the age of your Sheepe, looke in his mouth, and when he is one ſheare, he will have two broad teeth afore: when he is two ſheare, he will have foure broad teeth afore: when he is three, he will have ſixe; and when he is foure ſheare, he will have eight: and after thoſe yeeres, his mouth will begin to breake: for, touching that rule of the evenneſſe and unevenneſſe of the mouth, it is uncertaine, and failes upon many occaſions.

The end of the Sheepe.

Of Goats.

CHAP. I.

Of Goats, and of their nature.

SEeing Goats are not of any generall uſe in our Kingdome, but onely nouriſhed in ſome wilde and barren places, where Cattell of better profit can hardly be maintained, as in the mountainous parts of *Wales*, in the barrenneſt parts of *Cornewall* and *Devonſhire*, on *Malverne* hills, and ſome few about the *Peake*: I will not ſtand upon any large diſcourſe, but as briefely as I can, give you their natures and cures. You ſhall then know, that the Goat

is

The nature of Goats.

is a beast of a hot, strong, and lusty constitution; especially in the generation, that they exceede all other Cattell: delight to live in mountaines that be high, craggie, and full Bushes, Bryers, and other wood; they will feed in any plaine pastures, but their speciall delight is in brousing upon trees, they are so nimble of foot, that they will goe in places of greatest danger. The profit which commeth from them, is their Milk, which is an excellent restorative, and their Kids which are an excellent Venison. They are in other Countries, as in *Spaine*, the Hands of the *Azores*, and the Hands of the *Canaries*, preserved for the chase, and for hunting, as wee preserve our Deere, both red and fallow, and make excellent pastime.

His shape.

For the shape of the Goat: he would have a large body, and well haired, great legs, upright joynts, not bending, a necke plaine and short, a head small and slender, large hornes, and bending, a big eye, and a long beard, and his colour white, blacke, or pide. Some doe use to sheare them, to make rough mantles of; but it is not so with us in *England*. The she-Goat would have large Tears, and big Udders, hanging eares, and no hornes, as they have in many places.

The ordering of Goats.

These Goates would be kept in small Flockes, or Herds, as not above a hundred in a Herd: as they must in the heat of Sommer have much shade, so in the Winter likewise much shelter, for they can neither indure extremity of heat nor cold, especially, the violence of Winter, for that will make the she-Goat cast her Kidde, or bring it forth untimely. These love Mast well, but yet you must give them other food to mixe with it. The best time to let the Male and Female goe together, is about the beginning of *December*. If you h use Goats, in the Winter, let them have no litter to lie on, but the

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floore paved, or gravelled, for otherwise, their owne heat will annoy them: they must also be kept very cleanly, for they can indure no filthy favors. For the young Kids, you shall in all points order them as you do your Lambs.

Now, for their preservation, if they be suffered to goe and choose their owne food, they are to themselves so good physicians, that they will seldome or never be troubled with any inward sickneſſe; only the unnaturall exceſſe of their luſt maketh them grow ſoone old, and ſo both paſt uſe and profit. For thoſe particular diſeaſes which accidentally fall upon them: here followeth the Cures.

CHAP. XI.

Of the Peſtilence in Goats, or any inward and hidden ſickneſſe.

IF you perceive your Goats to droope, or looke with ſullen or ſad countenances, it is an aſſured ſigne of ſickneſſe; but if they foame, or lather at the mouth, then it is a ſigne of the Peſtilence. The cure is, firſt, to ſeparate them from the ſound, then to let them blood, and give them the *Buds* and *Leaves* of *Celadine*, with Ruſhes and Reeds to eate, and it is a preſent remedy. The cure.

CHAP. XII.

Of the Dropſie in Goats.

GOates are very much ſubject unto the Dropſie, through their exceſſe of drinking of water; the ſigne whereof is a great inflammation and heat in the skin: the cure is, to ſeethe *Worme-wood* in *water* and *ſalt*, and give a pint thereof to the Goat to drinke divers mornings, for to ſlit and let out the water under the ſhoulder, is not ſo certaine and ſafe a cure. The cure.

CHAP.

Chap. IIII.

Of stopping the Teates.

THere will ingender in the Teats of Goats, a certaine tough hard phlegme, which will stop the milke from issuing: which to cure, you shall with your finger and thumb pull it away, and then anoint the place with *Hony*, and the *Goats-milke* mix'd together.

The cure.

Chap. V.

Of Goats that cannot Kidde.

GOats above other Cattell, are troubled with hardnesse in Kidding, by reason that if they be chased or hunted, their Kids will turne in their bellies: the Remedy then to preserve them from that danger, is to keep them quiet and untroubled, untill they have Kidded.

Chap. VI.

Of the Tetter, or drie Scab in Goats.

TO heale any Tetter, or dry Scab in Goats, take blacke *Sope*, *Terre*, *Hogs-grease*, and *Brimstone*, mix them well together, and annoint the sores therewith, and it will heale them.

Chap. VII.

Of gelding Kiddes in the Summer season.

KIds being guelt in Summer season, as those which are late Kidded must necessarily be; the Flie will be so busie with the sore, that with their blowings they will breed such store of *Maggots* in the wound, that it will endanger their lives: to defend them from such annoyance of the *Flie*, you shall take *Soot*, *Tarre*, and thick *Creame*, and mix them well together, and anoint the wound therewith, and it will both heale it, and keepe the *Flie* away.

Chap.

Chap. VIII.

Of the Itch in Goats.

IF your Goats be troubled with any Itch, ſo that they cannot feede for clawing and biting themſelves, you ſhall waſh their ſkins with old *Chamber-lye*, and greene *Capers* well boil'd together, and it will kill the Itch.

Chap. IX.

Of the Quell ſtopping in Goats.

GOats, when they are ſucking on their Dammes, or when they are new kidded, will commonly have a great laxe or ſquirt, ſo that the ordure which commeth from them, if it be not well cleanſed and taken from them, it will with their owne naturall heate bake and dry, that it will ſtop up their Quells, ſo that they cannot dung, which if it be not holpen, the Kidde will die. The cure is, to cleanſe the place, and open the Quell, and then put into it an inch, or thereabout, of a ſmall ſtraw end dip'd in *Honey*, and then anoint all the Quell over with *Capons-greaſe*. The cure.

Chap. X.

Of the Staggers, or Reeling-evill in Goats.

IF your Goats be troubled with the ſtaggers, or Reeling-evill, which is a diſeaſe bred in them by the violent heat of the Sunne: you ſhall take *Bay-ſalt* and *Verjoyce*, and mixe them together, and give the Goat halfe a pint thereof to drinke: or elſe take *Hauſe-leeke* and *Dragon*, of each alike, in grounds of *Ale*, with a little new *Milke*, ſtampe the herbes, and then mingle them together, then put thereto a few *Cloves* groſſely beaten, and then boile it againe, then ſtrayne it, and give the Goat three or foure ſpoonfuls thereof to drinke, and it

will cure her. Now for any other infirmities which shall happen unto Goats, you may cure them with the same medicine, which you cure Sheepe, for their natures doe not much differ.

The end of the Goate.

Of Swine.

Cap. I.

Of all manner of swine, their nature, use, shape, and preservation.

ALthough Swine are accompted noysome, noysome, unruly, and great devourers, as indeede their natures are not much differing from such qualities, yet the utility and profit of them will easily wipe off those offences; for to speake truly of the Swine, he is the *Husband-mans* Scavenger, and the *Housholders* most wholesome sinke, for his food and living is by that which would else rot in the yard, make it unsavory, and breed no good meanure, or being cast downe the ordinary sinke in the house breed noysome smells, corruption, and infection: for from the *Husband-man* he taketh Pulse, Chaffe, Barne-dust, mans Ordure, Garbage, and the Weedes of his yard: and from the *Housholder* draffe, swillings, Whey, washing of tubs, and such like with which he will live and keepe a good state of body very sufficiently, and though hee in accompted good in no place but the dish only, yet there he is so lovely and so wholesome, that all other faults may be borne with

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He is by nature greedy, given much to root up grounds, and teare downe fences, he is very lecherous, and in that & tedious and bruitish: he is subject to much anger, and the sight of the Bores is exceeding mortall: they can by no meanes endure stormes, winds, or foule weather, they are excellent observers of their owne homes, and exceeding great lovers one of another: so that they will die upon any beast that offendeth their fellowes.

Now touching the choice of Swine, you shall understand, that no Countrey in *England* breedeth naturally better Swine one than another: But if any have preheminence, then I must preferre *Leicester-shire*, and some parts of *Northampton-shire*, and clay-countries bordering *Leicester shire*, and the reason I take to be, their great multiplicity of graine, especially Beanes and Pulse. For the Mast-countries, though they are good feeders, they are no large breeders, whence it comes, that your wilde Swine is ever your least Swine, but your sweetest Bacon. But if the race and keeping be alike, the proportion and goodnesse will be alike: therefore in the choice of your Swine, chiefly the Bores and Sowes which you breed of, let them be long and large of body, deepe sided, and deepe bellied, thicke thighes, and short legs, for though the long-legg'd Swine appeare a goodly beast, yet hee but couzeneth the eye, and is not so profitable to the Butcher: high clawes, thicke necke, a short and strong groine, and a good thicke chine well set with strong bristles: the colour is best which is all of one piece, as all white, or all sanded, the pide are the worst, and most apt to take Meazells, the black is tolerable, but our Kingdome through the coldnesse breedeth them seldome.

Of the choice and shape of Swine.

The use and profit of Swine is onely (as the *Husbandman* saith) for the roofe, which is Bacon, for the spit

which

The use and profit of Swine.

which is Porke, Sowse and Puddings, and for breed, which is their Pigs onely. To have too many Sowes in a yard is not good, for their increase, and bringing forth is so great, that they will for want of food eat one another. A Sowe will bring forth Pigs three times a yeere, namely, at the end of every ten weekes, and the number are great which they will bring forth: for I have known one Sow have twenty Pigs at one litter, twelve, fourteen and sixteen are very common; yet a Sow can bring up no more Pigs than shee hath Teats, therefore look how many shee hath, and so many Pigs preserve of the best, the rest cast away, or put to other Sowes, which want, yet give sucke. A Sow will bring Pigs from one yeere old, till she be seven yeeres old: The Pigs which you reare after you have chosen the best for Boares or Sowes to breed on, geld the rest, both males and females: the males will make goodly Hogs, which are excellent Bacon or Porke, and the females, which are called spaid-guilts, will doe the like; and breed a great deale more grease in their bodies, whence it comes that the *Husbandmen* esteemes one spaid-guilt before two Hogs. Young Shots, which are Swine of three quarters, or but one yeere old, are the daintiest Porke.

Now for the preservation of Swine, it is contained in their government and food, and is all that belongeth to the office of the Swine-herd. The orderliest feeding of Swine is (when you keep them, but in good state of body, and not seeke to fat them) in the morning early when you unstie them, is to give them Draffe, Pulse, or other garbage, with swillings in their troughes, and when they have eaten it to drive them to the field, where they may graze and root for their food: and of grounds the soft marish and moorish grounds are the best, where they may

may get the roots of Sedge, Reeds, Rushes, Knot-grasse, and such like, which is wholesome for Swine, or the Fallow or tilthe field, where they may root at pleasure, and by killing the weed, bring profit to the earth: and at the fall of the Leafe, it is good to drive them to hedges, where they may get Hawes, Hips, Sloes, Crabs, or such fruit, which is also very wholesome: and the poorer sort will gather these fruits, and keepe them safe to feed their Swine with all the Winter. When Evening commeth, you shall drive your Swine home, and then filling their troughes with Draffe and Swillings, let them fill their bellies, and then stie them up, so shall you keepe them from doing other hurts or injuries. If once in a fortnight you mixe with your Swillings some *Radle*, or red *Oaker*, it will preserve them wonderfully from Meazells, and all inward infections. And thus much for the generall discourse of Swine: Now I will proceed to their particular infirmities, and other businesses.

Chap. XI.

Of the Feaver, or any hidden sickenesse in Swine.

THere is no Beast maketh his sickenesse so apparant as the Swine; for when he findeth any griefe or distemperature in his body, he presently droopeth, forsakes his meate, and will not eate till he find in himselfe a perfect recovery: Therefore when you shall so find him to forsake his meat, you shall first let him blood under his taile, and under his eares, and if they bleed not freshly enough, you shall beate them with a small sticke, and that will bring forth the blood, then wrap about the wounds, the barke of a young *Osier*, and then keepe him warme, and give him to drinke warme *Swillings*, well mix'd with *Barley meale*, and red *Oaker*. The cure.

Chap. III.

Of the Murren, Peſtilence, or Cathar in Swine.

THeſe diſeaſes being all of one nature, are very much incident to Swine, and ſpring from many grounds, as from corruption in blood ingendred by the eating of rotten fruit, or too much Butchers garbage, and many times by eating too rank graſſe, wherin is much *Hemlock*. The particular ſignes are moiſt eyes, and their heads borne on each ſide; but the generall knowledge is their faſting and mortality. The cure is, to give them in warme *waſh, hens-dung*, and boil'd *Liverwort*, with a little *red oaker*.

The cure.

Chap. IIII.

Of the Gall in Swine.

SWine will oft have an over-flowing of the Gall, becauſe choller is much powerfull in them, which you ſhall know by a ſwelling which will riſe under their jawes. And the cure is, to ſtamp *Gallwort*, or *Saffron*, and mixe it with *Hony* and *Water*, and then ſtraining it, give it the Swine to drinke by a pint at a time.

The cure.

Chap. V.

Of the Meazels in Swine.

THis diſeaſe of all other, is the moſt common in Swine, and with moſt eaſe helped: As thus, you ſhall take the oldeſt *Vrine* you can get, and mix it with red *Oaker*, till it be thicke, and about the quantity of an *Ale* quart, then mix it with a gallon of warme ſweet *Whey*, and give it the Swine to drink, after he hath been kept all night faſting.

Chap. VI.

Of Impoſtumes in any part of a Swine.

SWine will have Impoſtumes in many parts of their bodies, as under their throats, their eares, bellies, and

oft

oft upon their sides. The cure is, if they be soft, to lance them, and let out the matter, and then heale them with *Tarre* & *Butter*, but if they be not soft, then let the Swine blood under the tongue, and rub all his mouth, chaps, and groine with *Wheat-meale* and *Salt*, and the Impostume will goe away. The cure.

Chap. VII.

Of vomitting in Swine.

IF your Swine doe vomit and cast up his meate, you shall give him spelted *Beanes* to eate, and they will strengthen his stomach.

Chap. VIII.

Of leanesse, mislike, scurfe, and mangiesse in Swine.

THese diseases proceed from corruption of blood, ingendred by lying wet in their sties, having filthy rotten Litter, or much scarcity of meat. The cure is, first to let the Swine blood under the taile, then to take a woollcard, and to combe off all the scurfe and filth from the Swines backe, even till his skin bleed: then take *Tarre*, *Hogs-grease*, and *Brimstone*, and mixing them well together, anoint the Swine therewith, then let the stie be mended, his Litter be sweet, and give him good warme food, and the Swine will be fat & sound very suddenly. The cure.

Chap. IX.

Of the sleeping-evill in Swine.

SWine are much subject to this disease in the Summertime, and you shall know it by their continuall sleeping, and neglecting to eate their meat. The cure is, to house them up, and keepe them fasting 24 houres; then in the morning, when hunger pincheth them, to give them to drinke water, in which is stamp'd good store of The Cure.

Stonecrope; which as ſoone as they have drunke, they will vomit and caſt, and that is a preſent remedy.

Chap. X.

Of paine in the Milt.

SWine are oft troubled with paine in their Milts or ſpleenes, which proceedeth from the eating of Maſt, when they are firſt put thereunto, through their over greedy eating thereof, and is knowne by reeling, going of one ſide. The cure is, to give them the juice of *Wormwood*, in a little *Honied water* to drinke, and it will aſſwage the paine.

The cure.

Chap. XI.

Of the unnaturalneſſe of Sowes.

MAny Sowes doe prove ſo unnaturall, that they will devoure their Pigs when they have farro'd them, which ſpringeth from an unnaturall greedineſſe in them: which to help, you muſt watch her when ſhe farroweth, and take away the Pigs as they fall, then take the wrecking or worſt Pig, and anoint it all over with the juice of *Stonecrope*, and ſo give it the Sow againe: and if ſhe devoure it, it will make her caſt and vomit ſo extremely, that the paine of the ſurfeit will make her loath to doe the like againe; But of all cures, the beſt for ſuch an unnatural beaſt, is to feed her well, and then kill her.

Chap. XII.

Of the Laxe or Flixe in Hogs.

FOr the Laxe or Flixe in Swine, you ſhall give them *Verjuyce* and *Milke* mix'd together to drinke, and then feed him with dry food; as ſpletted *Beanes*, *Acornes*, or *Acorn-huskes*. This is alſo excellent and approved for young Pigs and Shots, when they have any ſcouring.

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Chap.

Chap. XIII.

Of the lugging of Swine with Dogs.

IF your Swine be extremely lugg'd and bitten with Dogs, to prevent the rankling and impoſtumation of the ſore, you ſhall annoint it with *Vineger*, *Sope*, and *Tallow* mix'd together, and it will cure the ſame.

Chap. XIIII.

Of the Poxe in Swine.

THe Poxe is a filthy and infectious diſeaſe in Swine, proceeding from corrupt blood, ingendred by poverty, wet lying, lowſineſſe and ſuch like; and the Swine can never proſper which hath them. The cure is to give him firſt to drinke two ſpoonfulls of *London Treacle* in a pint of *Honied-water*, which will expell the infection outwardly, then to anoint the ſores with *Brimſtone* & *Boares-greaſe* mixt together, and ſo ſeparate the ſicke from the ſound. The cure.

Chap. XV.

Of killing Maggots in the eares or other parts of Swine.

IF Maggots ſhall breed in the eares of your Swine, which have been lugg'd with Dogs, for want of good looking unto, as oft it happeneth: you ſhall take either the ſweeteſt *Wort* you can get, or elſe *Honey*, and anoint the ſores therewith, and the Maggots preſently will fall off and die.

Chap. XVI.

Of feeding a Swine exceeding fat either for Bacon or Lard.

DIvers men according to the nature of divers Countries, have divers waies in feeding of their Swine, as thoſe which live neere unto Woods and places where ſtore of Maſt is, turne their Swine unto the Maſt for ſixe The feeding of Swine in wood Countries.

or eight weekes, and then having got flesh and fatnesse on their backes doe bring them home, and put them up in Sties, and then feed them for ten daies or a fortnight after, with old dry Peafe given them oft in the day, a little at once, with water, as much as they will drinke: for this will harden the flesh and fat so, that it will not consume when it comes to boiling: this manner of feeding is good, and not to be disliked.

The feeding of Swine in champaine countries.

Now the feeding of Swine in champaine Countries, which are farre from woods, is in this manner: First, you shall Stie up those Swine which you intend to feed, and let them not come out of the same, untill they be fed, but have their food and water brought unto them: now, the first two daies you shall give them nothing; the third day you shall earely in the morning give them a pretty quantity of dry Peafe or Beanes; at noone you shall give them as much more, at foure of clock as much more, and when you goe to bed as much more, but all that day no water: The next day you shall feed them againe at the same houres, and set water by them, that they may drinke at their owne pleasures, and twice or thrice a weeke, as your provision will serve you, it is good to fill their bellies with sweet Whey, Butter-milke, or warme wash, but by no meanes scant the proportion of their Peafe; and by thus doing, you shall feed a Swine fat enough for the slaughter in foure or five weekes.

Of feeding at the Reeke.

There be other *Husbandmen* in champaine Countries, as in *Leicester-shire*, and such like, that put their Swine to Peafe-reeks or stackes set in the fields, neere unto water-furrowes or rund'es, so that they may let the water into the stack-yard; and then morning and evening cut a cutting of the stack or reeke, and spread the reaps amongst the Swine: this maner of feeding is best for small porkers

and

and will fat them very reaſonably in three weekes or a moneth. If you feed Sheepe amongſt your Porkets, it is very good, and daily by many practiſed; for by that meanes you ſhall not loſe any of your Graine, for what your Sheepe cannot gather up, your Porkets will.

Of feeding of Swine, in, or about great Cities.

Now, for ſuch as live in or neer about great Cities, or Townes, as *London*, *Yorke*, or ſuch like, and have neither great ſtore of Maſt, nor great ſtore of Graine; yet they have a manner of feeding as good, and ſomewhat more ſpeedier than any of the other, only the Bacon is not ſo ſweet or toothſome; and thus it is: They ſtie up their fatlings, as is before ſaid, and then take Chandlers Graines, which is the dregs and offall of rendred Tallow, as hard skins, kells, and fleſhly lumpes, which will not melt, together with other courſe skinnes of the Tallow, Suet, or Kitching-fee, and mixing it with warme waſh, give it the Swine to eate three or foure times in the day, and it will ſuddenly puffe him up with fatneſſe; then beſtow of every Swine a Buſhell of dry Peaſe to harden his fleſh, and you may then kill them at your pleaſure. The only danger of this food is, it will at firſt ſometimes make Swine ſcoure; eſpecially young Pigs, if they eate it: but as ſoone as you perceive ſuch a fault, give unto your elder Swine Milk and Verdjuyce, and to your ſucking Pigs Verdjuyce only.

Of feeding of Hogs for larde, or Boares for Brawne.

Now, laſtly, the beſt feeding of a Swine for lard, or a Boare for Brawne, is to feed them the firſt weeke with Barley ſodden till it breake, and ſod in ſuch quantity, that it may ever be given ſweet: then after to feed them with raw maulſt from the floore, before it be dried, till they be fat enough; and then for a weeke after, to give them dry Peaſe or Beanes to harden their fleſh. Let their drinke be the waſhing of Hogſheads, or Ale-barrells, or

ſweet Whey, and let them have ſtore thereof. This manner of feeding, breeds the whiteſt, fatteſt, and beſt fleſh that may be, as hath beene approved by the beſt *Husbands*.

The end of the Swine of all ſorts.

Of Conies.

Chap. I.

Of the tame rich Conie, his nature, choice, profit, and preſervation.

The nature of the Conie.

ALL ſorts of Conies may as well be kept tame as wilde, and doe above other Beaſts delight in impriſonment and ſolitarineſſe, which proceedeth from the ſtrength of melancholy in their nature, being creatures ſo much participating of the earth, that their delight is to live in holes, rocks, and other darke Caverns: They are violently hot in the act of generation, and performe it with ſuch vigour and exceſſe, as to ſwound and lie in trances a good ſpace after the deede is done. The males are given to much cruelty, and would kill the yong Rabbets, if he cou'd come to them: Whence it proceedeth, that the females after they have kindled, hide their young ones, and cloſe up their holes, ſo that the Bucke Conie may not find them. The Female or Doe Conies are wonderfull in their increaſe, and bring forth young ones every moneth: Therefore, when you keepe them tame in Boxes, you muſt obſerve to watch them, and as ſoone

soone as they have kindled, to put them to the Bucke, or otherwise they will mourne, and hardly bring up their young ones.

The boxes, in which you shall keepe your tame Conies, would be made of thin Wainscot-boards, some two foot square, and one foot high; and that square must be divided into two roomes, a greater roome with open windowes of wyre, thorow which the Conie may feed; and a lesser roome without light, in which the Conie may lodge and kindle, and before them both a Trough, in which you may put meat, and other necessaries for the Conie; and thus you may make boxe upon boxe in divers stories, keeping your Buckes by themselves, and your Does by themselves, except it be such Does as have not bred, and then you may let a Bucke lodge with them: also when your Doe hath kindled one nest, and then kindleth another, you shall take the first from her, and put them together in a severall boxe, amongst Rabbets of their owne age; provided, that the Boxe be not pestred, but that they may have ease and liberty. *Of boxes for tame Conies.*

Now, for the choice of these tame rich Conies, you shall not as in other Carrell, locke to their shape, but to their richnesse, onely elect your Buckes the largest, and goodliest Conies you can get: and for the richnesse of the skin, that is accounted the richest, which hath the equallest mixture of blacke and white haire together, yet the blacke rather shadowing the white, than the white any thing at all over-mastring the blacke, for a blacke skin, with a few silver haires, is much better than a white skin, with a few blacke haires: but as I said before, to have them equally, or indifferently mix'd, is the best above all other: the Furre would be thicke, deepe, smooth, and shining, and a blacke coat without silver haires, though *Of the choice of rich Conies.*

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it be not reckoned a rich coat, yet it is to be preferred before a white, a pyde, a yellow, a dun, or a gray.

Of the profit of rich Conies.

Now for the profit of these rich Conies, (for unlesse they did farre away, and by many degrees exceed the profit of all other Conies, they were not worthy the charge which must be bestowed upon them) it is this: First, every one of the rich Conies which are killed in season; as from *Martilmas* untill after *Candlemas*, is worth any five other Conies, for they are of body much fatter and larger, and when another skin is worth two pence or three pence at the most, they are worth two shillings, or two shilling sixe pence: Againe, they increase oftner, and bring forth more Rabbets at one kindling than any wilde Conie doth; they are ever ready at hand for the dish, Winter and Summer, without charge of Nets, Ferrets, or other Engines, and give their bodies *gratis*, for their skins will ever pay their Masters charge with a most large interest.

Of the feeding and preservation of Conies.

Now for the feeding and preservation of these rich Conies, it is nothing so costly or troublesome as many have imagined, and as some (ignorant in the skill of keeping them) have made the world thinke: for the best food you can feed a Cony with, is the sweetest, shortest, softest, and best *Hay* you can get, of which one load will serve two hundred couples a yeere, and out of the stocke of two hundred, you may spend in your house two hundred, and sel in the Market two hundred more, yet maintaine the stocke good, and answer every ordinary casualty. This *Hay* in little cloven sticks, might with ease reach it, and pull it out of the same, yet so, as they may not scatter nor waste any. In the troughes under their boxes, you shall put sweet *Oates* and their water, and this should be the ordinary and constant food wherewith you

should

ſhould feed your Conies, for all other ſhould be uſed but phyſically, as for the preſervation of their healths: as thus, you ſhall twice or thrice in a fortnight, for the cooling of their bodies, give them *Greenes*; as *Mallowes*, *Clover graſſe*, *Sower docks*, blades of greene *Corne*, *Cabbage*, or *Colewort-leaves*, and ſuch like, all which cooleth and nouriſheth exceedingly: ſome uſe to give them ſometimes ſweet *Graines*, but that muſt be uſed very ſeldome, for nothing ſooner rotteth a Cony.

You muſt alſo have great care, that when you cut any graſſe for them, or other weeds, that there grow no yong *Hemlocke* among it, for though they will eate it with all greedineſſe, yet it is a preſent poiſon, and kills ſuddenly: you muſt alſo have an eſpeciall care every day to make their boxes ſweet and cleane, for the ſtrong ſavour of their ordure and piſſe is ſo violent, that it will both annoy themſelves, and thoſe which ſhall be frequent amongſt them.

Now for the infirmities which are incident unto them, they are but two: the firſt is rottenneſſe, which commeth by giving them too much greene meat, or gathering their *greenes*, and giving it them with the dew on; therefore let them have it but ſeldome, and then the drineſſe of the *Hay* will ever drinke up the moiſture, knit them, and keepe them ſound without danger. Of the rot in Conies

The next is a certaine rage or madneſſe, ingendred by corrupt blood, ſpringing from the rankeneſſe of their keeping; and you ſhall know it by their wallowing and tumbling with their heeles upward, and leaping in their boxes. The cure is, to give them *Hare-thiſtle* to eate, and it will heale them. And thus much for the tame rich Cony, and his properties. Of madneſſe in Conies.

The end of the foure footed Beaſts.

The

The second Booke.

Of Poultry.

Chap. I.

Containing the ordering, fatting, cramming, and curing of all infirmities of Poultry, as Cockes, Hens, Chickens, Capons, Geese, Turkies, Pheasants, Partridges, Quailes, House-Doves, and all sorts of Fowle whatsoever. And first of the Dung-hill Cocke, Hen, Chicken, and Capon.

SOme small thing hath been written of this nature before, but so drawne from the opinions of old Writers: as *Italians*, *French*, *Dutch*, and such like, that it hath no coherence or congruity with the practice and experience of *English* customes, both their rules and climbes being so different from ours, that except we were to live in their countries, rules which are printed are useleſſe, and to no purpoſe. To let paſſe the opinion of ſtrangers, and come to our owne home-bred knowledge, which is ſo mix'd with all profitable experiments, that it needeth not the helpe of other Nations ſo much, as men would make us believe.

You ſhall underſtand that the dung-hill Cock (for the fighting-Cocke deſerveth a much larger and particular diſcourſe) is a fowle of all other birds the moſt manlieſt, ſtately, and majeſticall, very tame and familiar with the man, and naturally inclined to live and proſper in habitable Houſes: he is hot and ſtrong in the act of generation, and will ſerve ten Hens ſufficiently, and ſome twelve

and

and thirteen: He delighteth in open and liberall plaines, where he may lead forth his Hens into greene Paſtures, and under hedges, where they may warme and bathe themſelves in the Sunne, for to be penn'd up in walled places, or in paved Courts is moſt unnaturall unto them, neither will they proſper therein.

Now of the choice and ſhape of the dung-hill Cocke, hee would be of a large and well ſized body, long from the head to the rumpe, and thicke in the garth; his necke would be long, looſe, and curiouſly bending it, and his body together, being ſtreight, and high upereſted, as the Falcon, and other birds of prey are, his combe, wattles, and throat would be large, great compaſſe, jagged, and very Scarlet-red, his eyes round and great, the colour anſwering the colour of his plume or male, as gray with gray, red with red, or yellow with yellow, his bill would be crooked, ſharpe, and ſtrongly ſet on to his head, the colour being ſutable with the colour of the feathers on his head, his maine or neck-feathers would be very long, bright and ſhining, covering from his head to his ſhoulders, his legs ſtreight, and of a ſtrong beame, with large long ſpurres, ſharpe, and a little bending, and the colour blacke, yellow, or blewiſh, his clawes ſhort, ſtrong, and well wrinckled; his taile long, and covering his body very cloſely: and for the generall colour of the dung-hill Cocke, it would be red, for that is medicinall, and oft uſed in Culliſſes and reſtoratives. This Cocke ſhould be valiant within his owne walke, and if he be a little knaviſh, he is ſo much the better; he would be oft crowing, and buſie in ſcratching the earth to find out wormes, and other food for his Hens. *Of the choice and ſhape of the Cocke.*

Now for the Hen, if ſhe be a good one, ſhee ſhould not differ much from the nature of the Cocke, but be valiant, *Of the Hen her choice and ſhape.*

liant, vigilant, and laborious both for her ſelfe and her Chickens. In ſhape, the biggeſt and largeſt are the beſt, every proportion anſwering theſe before deſcribed of the Cocke, only inſtead of her combe, ſhee ſhould have upon her crowne a high thicke tuft of feathers: to have many and ſtrong claws is good, but to want hinder claws is better, for they oft break the Egs, and ſuch Hens ſometimes prove unnaturall: it is not good to chuſe a crowing hen, for they are neither good breeders, nor good layers. If you chuſe Hens to ſit, chuſe the elder, for they be conſtant, and will ſit out their times, and if you will chuſe Hens to lay, chuſe the youngeſt, for they are luſty and prone to the act of ingendring, but for neither purpoſe chuſe a fat Hen, for if you ſet her, ſhe will forſake her neſt, and if you keepe her to lay, ſhe will lay her Egs without ſhells. Beſides, a fat Hen will waxe ſlothfull, and neither delight in the one nor in the other Act of nature, ſuch hens then are ever fitter for the diſh than the hen-houſe.

Of ſetting Hens.

The beſt time to ſet hens, to have the beſt, largeſt, and moſt kindly Chickens, is in *February*, in the increaſe of the Moone, ſo that ſhe may hatch or diſcloſe her Chickens in the increaſe of the next new Moone, being in *March*, for one brood of *March* Chickens is worth three broods of any other: you may ſet hens from *March* till *October*, and have good Chickens, but not after by any meanes, for the Winter is a great enemy to their breeding. A hen doth ſit twenty one daies juſt, and then hatcheth, but Peahens, Turkies, Geeſe, Ducks, and other water-fowle ſit thirty: ſo that if you ſet your hen, as you may doe upon any of their egs, you muſt ſet her upon them nine daies before you ſet her upon her owne. A hen will cover nineteene egs well, and that is the moſt in true rule, ſhe ſhould cover, but upon what number ſoever

ſoever you ſet her, let it be odde, for ſo the egs will lie round, cloſe, and in even proportion together: It is good when you lay your egges firſt under your hens, to marke the upper ſide of them and then to watch the hen, to ſee if ſhe buſie her ſelfe to turne them from the one ſide to the other, which if you finde ſhe doth not, then when ſhe riſeth from her egges, to feed or bathe her ſelfe, you muſt ſupply that office, and turne every egge your ſelfe, and eſteeme your hen of ſo much the leſſe reckoning for the uſe of breeding: be ſure that the egs which you lay under her, be new and ſound, which you may know by their heavineſſe, fulneſſe, and cleereneſſe, if you hold them up betwixt the Sun and your eye-ſight; you muſt by no meanes, at any time raiſe your hen from her neſt, for that will make her utterly forſake it.

Now, for helping a hen to hatch her egges, or doing that which ſhould be her office, it is unneceſſary, and ſhall be much better to be forborne than any way uſed; or to make doubt of bringing forth, or to thinke the henne ſitteth too long (as many fooliſh curious houſe-wives doe) if you be ſure you ſet her upon ſound egges, is frivolous, but if you ſet her upon unſound egges, then blame your ſelfe, both of the loſſe and injury done to the hen in her loſſe of labour. A hen will be a good ſitter from the ſecond yeere of her laying, to the fifth, but hardly any longer: you ſhall obſerve, ever when your hen riſeth from her neſt, to have meate and water ready for her, leſt ſtraying too farre to ſeeke her food, ſhe let her egges coole too much, which is very hurtfull. In her abſence you ſhall ſtirre up the ſtraw of her neſt, and make it ſoft and handſome, and lay the egges in order, as ſhe left them: doe not in the election of your egges, chooſe thoſe which are monſtrous great.

Choice of Egs.

great, for they many times haue two yolkes, and though some write, that such Egs will bring out two Chickens, yet they are deceived, for if they bring forth two, they are commonly most abortive, and monstrous. To perfume the Neast with Brimstone is good, but with Rosemary is much better. To set Hens in the Winter time in Stowes or Ovens, is of no use with us in *England*, and though they may by that meanes bring forth, yet will the Chickens be never good nor profitable, but like the planting of Lemon and Pomegranate-trees, the fruit will come a great deale short of the charges. When your Hen at any time is absent from her Neast, you must haue great care, to see that the Cocke come not to sit upon the Egs, (as he will offer to doe) for he will endanger to breake them, and make her loue her Neast worse.

As soone as your Chickens be hatch'd, if any be weaker than other, you shall lap them in Wóoll, and let them haue the aire of the fire, and it will strengthen them, to perfume them with a little Rosemary, is very wholsome also; and thus you may in a Sive keepe the first hatch Chickens, till the rest be disclosed (for Chickens should haue no meate for two daies) and some shells being harder than other, they will take so much distance of time in opening: yet unlesse the Chickens be weake, or the Hen rude, it is not amisse to let them alone under her, for shee will nourish them most kindly: after two daies is past, the first meate you give them, should be very small Oate-meale, some dry, and some steep'd in Milke, or else fine Wheat-bread crums, and after they haue got strength, then Curds, Cheese-parings, white-bread crusts soak'd in Milke or drinke, Barley-meale or Wheat-bread scalded, or any such like soft meate that is small, and will easily be divided. It is good to keepe

Of Chickens.

Chicks

Chickes one fortnight in the house, and after to suffer them to goe abroad with the Hen to worme, for that is very wholesome; to chop greene *Chives* amongst your Chickens meate, will preserve them from the Rie, and other diseases in the head; neither must you at any time let your Chickens want water, for if they be forc'd to drink in puddles, it will breed the Pip: also, to feed upon *Tares*, *Darnell*, or *Cockle*, is very dangerous for young Chickens.

Of feeding and cramming Chickens.

You may by these foods before said, feed Chickens very fat under their dams: but if you will have fat cram'd Chickens, you shall coope them up when the Dam forsaketh them, and the best crams for them is wheat-meale and milke made into dough, and then the crams steep'd in milke, and so thrust downe their throats; but in any case, let the crams be small, and well wet for choaking. Fourteene daies will feed a Chicken sufficiently: and thus much briefly for your breed.

Of preserving Egges.

Now, because Egs of themselves are a singular profit: you shall understand, that the best way to preserve or keepe them long, is as some thinke, to lay them in good Straw, and cover them close, but that is too cold, and besides will make them mustie: others will lay them in Bran, but that is too hot, and will make them putrefie: and others will lay them in Salt, but that makes them wast and diminish: the best way then to keepe them most sweete, most sound, and most full, is onely to keepe them in a heape of old Malt, close, and well covered all over.

Of gathering Eggs.

You shall gather your Egs up once a day, and leave in the nest but the nest-Egge, and no more; and that would ever be in the afternoone, when you have seene every Hen come from her nest severally: some Hens

will by their cackling tell you when they have laid, but ſome will lay mute, therefore you muſt let your owne eye be your inſtructor.

Of the Capon, when to carve him.

Now touching the Capon, which is the gueld Cock-chicken, you ſhall underſtand, that the beſt time to carve or gueld him, is as ſoone as the Dam hath left them, (if the ſtones be come downe) or elſe as ſoone as they begin to crow: for the art of carving it ſelfe, it is both common and eaſie, and much ſooner to be learned by ſeeing one carved, than by any demonſtration in writing.

A Capon to lead chickens.

Theſe Capons are of two uſes: the one is, to leade Chickens, Ducklings, young Turkies, Peahens, Pheſants and Partridges, which he will doe altogether, both naturally and kindly, and through largeneſſe of his body will brood or cover eaſily thirty, or thirty and five; hee will lead them forth ſafely, and defend them againſt Kites or Buzzards, better than the Hens: therefore the way to make him to take to them is, with a fine ſmall Bryer, or elſe ſharp Nettles at night, to beat and ſting all his breſt and nether parts, and then in the darke to ſeat the Chickens under him, whoſe warmth taketh away his ſmart, he will fall much in love with them, and whenſoever he proveth unkind, you muſt ſting, or beat him againe, and this will make him he will never forſake them.

Of feeding or cramming Capons.

The other uſe of Capons is, to feed for the Diſh, as either at the Barne-doores, with craps of corne, and the chavings of Pulſe, or elſe in Pens in the houſe, by cramming them, which is the moſt dainty. The beſt way then to cram a Capon (ſetting all ſtrange inventions apart) is to take Barley-meale, reaſonably ſifted, and mixing it with new milke, make it into a good ſtiffe dough; then make it into long crams, biggeſt in the midſt, and ſmall at both ends, and then wetting them in luke-warme milke,

milke, give the Capon a full gorgefull thereof three times a day, morning, noone, and night, and he will in a fortnight or three weeks be as fat as any man need to eat. As for mixing their crams with sweete *Wort*, *Hogs greaſe*, or *Sallet Oile*, they are by experience found to breed loath in the birds, and not to feed at all, only keep this obſervation, not to give your Capon new meate untill the firſt be put over; and if you finde your Capon ſomething hard of digeſtion, then you ſhall ſift your meale finer, for the finer your meale is, the ſooner it will paſſe thorow their bodies. And thus much for the Capon. Now for their infirmities, they follow in order.

Chap. II.

Of the Pip in Poultry.

THe Pip is a white thin ſcale, growing on the tip of the tongue, and will make Poultry that they cannot feed: it is eaſie to be diſcerned, and proceedeth generally from drinking puddle-water, from want of water, or from eating filthy meate. The cure is, to pull off the ſcale with your naile, and then to rub the tongue with Salt. The cure.

Chap. III.

Of the roup in Poultry.

THe Roup is a filthy bile or ſwelling on the Rumpe of Poultry, and will corrupt the whole body. It is ordinarily knowne by the ſtaring and turning backewards of the feathers. The cure is, to pull away the feathers, and opening the ſore to thruſt out the Core, and then waſh the place with Salt and water, or with Brine, and it helpeth. The cure.

Chap. IIII.

Of the Fluxe in Poultry.

The Cure. THe Fluxe in Poultry commeth with eating too much moist meat. The cure is, to give them Pease-bran scalded, and it will stay them.

Chap. V.

Of stopping in the belly.

STopping in the bellies of Poultry, is contrary to the Fluxe, so that they cannot mute: therefore, you shall anoint their vents, and then give them either small bits of bread, or corne steep'd in mans urine.

Chap. VI.

Of Lice in Poultry.

IF your Poultry be much troubled with Lice, as it is a common infirmity, proceeding from corrupt food, or want of bathing in sand, ashes, or such like: you shall take *Pepper* small beaten, and mixing it with warm water, wash your Poultry therein, and it will kill all sorts of *Vermin*.

Chap. VII.

Of stinging with venemous wormes.

IF your Poultry be stung with any venemous thing, as you may perceive by their lowring and swelling, you shall then annoint them with *Rew* and *Butter* mixt together, and it helpeth.

Chap. VIII.

Of sore eyes in Poultry.

IF your Poultry have sore eyes, you shall take a leafe or two of *Ground-ivie*, and chawing it well in your mouth, sucke out the juyce, and spit it into the sore eye, and it will most assuredly heale it, as it hath beene often tried.

Chap.

Chap. IX.

Of Hens that crow.

IF your Hens crow, which is an ill signe and unnaturall; you shall pull their wings, and give her to eate either Baley scorched, or small wheat, and keepe her close from other Poultry.

Chap. X.

Of Hens that eate their Egges.

IF your Hen will eate her Egs, you shall only lay for her nest-Eg, a piece of chalke, cut like an Eg, at which oft pecking and losing her labour, she will restraine the evill.

Chap. XI.

Of keeping a Hen from sitting.

IF you would not have your Hen sit, you shall bathe her oft in cold water, and thrust a small feather thorow her nostrills.

Chap. XII.

Of making Hens lay soone and oft.

IF you feed your Hens often with toasts taken out of Ale, with Barley boild, or spelted Fitches, they will lay soone, oft, and all the Winter.

Chap. XIII.

Of making Hens leane.

BEcause fat Hens commonly either lay their Egs without shells, or at the best hand lay very small Egges, to keep them leane, and in good plight for laying, you shall mixe both their meate and water with the powder of *Tilsheards*, *Chalke*, or else *Tares*, twice or thrice a weeke.

Chap. XLII.

Of the Crow-trodden.

IF your *Hen* be trodden with a carrion *Crow*, or *Kite*, as oft they are, it is mortall and incurable, you shall know it by the staring up of her feathers, and hanging of her wings; there is no way with her then, but presently to kill her.

Chap. XV.

Of the Hen-house, and the Scituation.

NOw for as much as no Poultry can be kept either in health or safety abroad, but must of force be housed; you shall understand, that your *Hen-house* would be large and spacious, with somewhat a high roofe, the walls strong, both to keepe out theeves and vermine, the windowes upon the Sunne rising, strongly lathed, and close shuts inward; round about the inside of the walls upon the ground would be built large pens of three foot high, for Geese, Ducks, and great fowle to sit in. Neere to the evings of the house would be long pearches, reaching from one side of the house to the other, upon which should sit your Cocks, Hens, Capons, and Turkies, each on severall pearches, as they are disposed: at another side of the house, in that part which is darkest, over the ground pens, would be fixed hampers full of straw for nests, in which your hens shall lay their egs; but when they sit to bring forth Chickens, then let them sit on the ground, for otherwise it is dangerous: let there be pins stricken into the walls, so that your Poultry may climbe to their pearches with ease: let the floore by no meanes be paved but of earth smooth and easie: let the smaller fowle have a hole at one end of the house made to come in and out at, when they please, or else they will seeke rost for

other

other places, and for the greater fowle the doore may be opened evening and morning; this house would be placed either neere some Kitching, Brewhouse, or else some Kilne, where it may have aire of the fire, and be perfumed with smoake, which to Pullen is delightfull and wholesome. And thus much of the Cocke, Hen, Capon, and Chicken.

Chap. XVI.

of Geese, their nature, choice, and how to breed them.

Geese are a fowle of great profit many waies: as first for food, next for their feathers, and lastly, for their grease. They are held of *Husbandmen*, to be fowle of two lives, because they live both on land and water: and therefore all men must understand, that except he have either Pond or Streame, he can never keepe Geese well. They are so watchfull and carefull over themselves, that they will prevent most dangers: Grasse also they must necessarily have, and the worst, and that which is the most useleſſe, is the best, as that which is moorish, rotten, and unsavoury for Cattell. To good grasse they are a great enemy, for their dung and treading will putrifie it, and make it worse than barren.

Now for the choice of Geese, the largest is the best, and the colour would be white or gray, all of one paire, for pide are not so profitable, and blacke are worse: your Gander would be knavish and hardy, for hee will defend his Gosslings the better. The choice of Geese.

Now for the laying of Egges, a Goose beginneth to lay in the Spring, and she that layeth earliest is ever the best Goose, for she may have a second hatch. Geese will lay twelve, and some sixteene egs: some will lay more, but it is seldome, and they cannot be all well covered: Of laying Egs and sitting.

you ſhall know when your Gooſe will lay, by her carrying of ſtraw up and downe in her mouth, and ſcattering it abroad; and you ſhall know when ſhee will ſit by her continuing on the neſt ſtill after ſhee hath laid. You muſt ſet a Gooſe upon her owne Egges, for ſhee will hardly or unkindely ſit on another Gooſes Egs, as ſome imagine, but it is not ever certaine: You ſhall in her ſtraw when you ſet her, mixe Nettle-roots, for it is good for the Goſlings: thirtie daies is the full time that a Gooſe ſitteth; but if the weather be faire and warme ſhee will hatch three or foure daies ſooner: ever when the Gooſe riſeth from the neſt, you ſhall give her meat as skegge Oats, and Bran ſcalded, and give her leave to bathe in the water. After ſhe hath hatch'd her Goſlings, you ſhall keepe them in the houſe ten or twelve daies, and feed them with curds, ſcalded chippings, or Barley-meale in milke knodden and broken, alſo ground Malt is exceeding good, or any bran that is ſcalded in water, milke, or tappings of drinke. After they have got a little ſtrength, you may let them goe abroad, with a keeper, five or ſixe houres in a day, and let the Dam at her pleaſure entice them into the water; then bring them in, and put them up, and thus order them till they be able to defend themſelves from Vermine. After a Goſling is a moneth or ſixe weekes old, you may put it up to feed for a greene Gooſe, and it will be perfectly fed in another moneth following: and to feed them, there is no meat better than skeg Oats boil'd, and give plenty thereof thrice a day, morning, noone, and night, with good ſtore of milke, or milke and water mix'd together to drinke.

The ordering of Goſlings.

Of greene-Geeſe, and their fatting.

Of Ganders.

Now you ſhall underſtand, one Gander will ſerve well five Geeſe, and to have not above forty Geeſe in a flocke is beſt, for to have more, is both hurtfull and troubleſome.

Now

Now for the fatting of elder Geese, which are those which are five or six moneths old, you shall understand, that after they have beene in the stubble-fields, and during the time of Harvest got into good flesh, you shall then choose out such Geese as you will feed, and put them in severall pens, which are close and darke, and there feed them thrice a day with good store of Oates, or spelted Beanes, and give them to drinke water and Barley-meale mix'd together, which must evermore stand before them; this will in three weeks feed a Goose so fat as is needfull. Fatting of elder Geese.

Now lastly, for the gathering of a Gooses feathers, you shall understand, that howsoever some Writers advise you for a needlesse profit to pull your Goose twice a yeere, *March* and *August*; yet certainly it is very naught and ill: for, first, by disabling the flight of the Goose, you make her subject to the cruelty of the Foxe, and other ravenous Beasts; and by unclothing her in Winter, you strike that cold into her body, which kills her very suddenly, therefore it is best to stay till moulting time, or till you kill her, and then you may imploy all her feathers at your pleasure, either for Beds, Fletchers, or Scriveners. Of gathering Geese feathers.

For the diseases and infirmities in Geese, the most and worst they are subject unto, is the *Gargill*; which is a mortall or deadly stopping of the head. And the ordinary and certaine cure is, to take three or foure cloves of *Garlicke*, and beating them in a Mortar with sweet *Butter*, make little long balls thereof, and give two or three of them to the Goose fatting, and then shut her up for two houres after. Of the Gargill in Geese. The cure.

CHAP.

Chap. XVII.

Of Turkies, their nature, use, increase, and breeding.

TUrkies, howsoever by some Writers, they are held devourers of corne, straiers abroad, ever poling for meat, and many such like fained troubles, as if they were utterly unprofitable, yet it is certaine they are most delicate, either in paste, or from the spit, and being fat, farre exceeding any other house-fowle whatsoever; nay, they are kept with more ease and lesse cost: for they will take more paines for their food than any other bird, onely they are enemies to a Garden, and from thence must ever be kept. They are when they are young very tender to bring up, both because they have a straying nature in themselves, and the Dams are so negligent, that whilest she hath one following her, she never respecteth the rest. Therefore they must have a vigilant keeper to attend them, till they can shift for themselves, and then they will flocke together, and seldome be parted. Till you fat them, you need not take care for food for them, they love to roust in trees, or other high places.

Of the choice of the Turkie-Cocke.

Now for your choice of such as you would breed on; your Turkie-cocke would not be above two yeeres old at most, be sure that he be loving to the Chickens, and for your hen, shee will lay till she be five yeeres old and upward. Your Turkie-cocke would be a bird large, stout, proud, and majesticall; for when hee walketh dejected, he is never good breeder.

Of the Turkie-hen her sitting.

The Turkie-hen, if shee be not prevented, will lay abroad in secret places, therefore you must watch her, and bring her into your *Hen-house*, and there compell her to lay. They begin to lay in *March*, and will sit in *April*, and eleven Egs or thirteene is the most they should

cover:

cover: they hatch ouer betweene five and twenty, and thirty daies. When they have hatch'd their broods, be sure to keepe the chicks warme, for the least cold kills them, and feed them either with curds, or greene fresh cheese cut in small pieces. Let their drinke be new milke, or milke and water: you must be carefull to feed them often, for the Turkie-hen will not take the house-hen call her chickens to feed them. When your chicks have got strength, you shall feed them abroad in some close walled grasse-plot, where they cannot stray, or else ever be at charge of a Keeper. The dew is most hurtfull unto them, therefore you must house them at night, and let them abroad after Sunne rise in the morning.

Now for the fatting of Turkies, sodden Barley is excellent, or sodden oats for the first fortnight, and then for another fortnight, cram them in all sorts as you cram your Capon, and they will be fat beyond measure. Now for their infirmities: when they are at liberty, they are such good physicians for themselves, that they will never trouble their owners; but being coop'd up, you must cure them as is before prescribed for Pullen. Their Egs are exceeding wholesome to eate, and restore nature decayed wonderfully. Of feeding Turkies.

Chap. XVIII.

Of the Ducke, and such water-fowles.

THe tame Ducke is an exceeding necessary fowle for the *Husbandmans* yard, for shee asketh no charge in keeping, but liveth of corne lost, or other things of lesse profit. She is once in a yeere a very great layer of Egges, and when she sitteth shee craves both attendance and feeding: for being restrained from seeking her food, she must be helped with a little Barley, or other ouer-cha-

ving

ving of corne, such as else you would give unto Swine, for her sitting, hatching and feeding of her Ducklings, it is in all points to be observed in such manner as you did before with the Goose, onely after they are abroad they will shift better for their food than Goslings will: For the fatting of Duckes or Ducklings, you may do it in three weekes, by giving them any kinde of Pulse or Graine, and good store of water.

Of wild Ducks and their ordering.

If you will preserve wilde-Duckes, you must wall in a little piece of ground, in which is some little Pond or Spring, and cover the top of it all over with a strong Net, the Pond must be set with many tufts of Oziers, and have many secret holes and creeks in, for that will make them delight and feed, though imprisoned. The wilde-Ducke when she laieth, will steale from the Drake, and hide her nest, for else he will sucke the Egges. When she hath hatch'd, she is most carefull to nourish them, and needeth no attendance more than meat, which would be given fresh twice a day: as scalded Bran, Oats, or Fitches. The house-hen will hatch wild-ducks egs, and the men will be much the better, yet every time they go into the water, they are in danger of the Kite, because the Hen cannot guard them, in the same manner as you nourish wilde-Ducks, so you may nourish Teiles, Widgens Shel-drakes, or green Plovers.

Chap. XIX.

Of Swans, and their feeding.

TO speake of the breeding of Swans is needlesse, because they can better order themselves in that businesse than any man can direct them, onely where they build their nests, you shall suffer them to remaine undisturbed, and it will be sufficient: but for the feeding of

them

them fat for the dish, you shall feed your Cygnets in all sorts as you feed your Geese, and they will be thorow fat in seven or eight weekes, either coop'd up in the house, or else walking abroad in some private Court; but if you would have them fat in shorter space, then you shall feed them in some pond, hedg'd or pail'd in for the purpose, having a little dry ground left where they may sit and prune themselves, and you may place two troughes, one full of Barley and water, the other full of old dri'd Malt, on which they may feed at their pleasure, and thus doing, they will be fat in lesse than foure weeks: for by this meanes a Swan keepeth himselfe neate and cleane, who being a much defiled Bird, liveth in dry places so uncleanly, that they cannot prosper, unlesse his attender be diligent to dresse and trim his walke every houre.

Chap. XX.

Of the Peacocks, and Peahens, their increase and ordering.

Peacockes, howsoever our old Writers are pleas'd to deceive themselves in their praises, are birds more to delight the eye by looking on them, than for any particular profit; the best commodity rising from them, being the cleansing and keeping of the yard free from venemous things; as Toades, Newtes, and such like, which is their daily food: whence it comes, that their flesh is very unwholesome, and used in great banquets more for the rarenesse, than the nourishment, for it is most certaine; roast a Peacocke or Peahen never so drie, then set it up, and looke on it the next day, and it will be bloodrawe, as if it had not beene rosted at all.

The Peahen loves to lay her Egges abroad in bushes and hedges, where the Cocke may not finde them, for if he doe, he will breake them, therefore as soone as she begins

gins to lay, ſeparate her from the Cocke, and houſe her till ſhe have brought forth her young, and that the coronet of feathers begin to riſe at their foreheads, and then turne them abroad, and the Cocke will love them, but not before. A Peahen ſits juſt thirty daies, and in her ſitting any graine, with water, is food good enough: before your Chickens goe abroad, you ſhall feed them with freſh greene Cheeſe, and Barley-meale, with water; but after they goe abroad, the Dam will provide for them. The beſt time to ſet a Peahen, is at the beginning of the Moone, and if you ſet Hen-egs amongſt her egs, ſhe will nouriſh both equally. Theſe Pea-chickens are very tender, and the leaſt cold doth kill them: therefore you muſt have care to keepe them warme, and not to let them goe abroad, but when the Sun ſhineth. Now for the feeding of them, it is a labour you may well ſave, for if they goe in a place where there is any corne ſtirring, they will have part, and being meate which is ſeldome or never eaten, it mattereth not ſo much for their fatting.

Chap. XXI.

Of the tame Pigeon, or rough-footed.

THe tame rough-footed Pigeon differs not much from the wilde Pigeon, onely they are ſomewhat bigger and more familiar, and apt to be tame; they commonly bring not forth above one paire of Pigeons at a time, and thoſe which are the leaſt of body, are ever the beſt breeders. They muſt have their roomes and boxes made cleane once a weeke; for they delight much in neatneſſe, and if the walls be outwardly whited or painted, they love it the better; for they delight much in faire buildings. They will bring forth their young ones once a moneth, if they be well fed, and after they be well

pair'd

pair'd, they will never be divided. The Cocke is a very loving and naturall bird, both to his Hen and yong ones, and will ſit the egs whileſt the Hen feedeth, as the Hen ſits whileſt he feedeth: he will alſo feed the young with as much painfulneſſe as the Dam doth, and is beſt pleaſed when he is brooding them. Theſe kind of Pigeons you ſhall feed with white Peaſe, Tares, and good ſtore of cleane water. In the roome where they lodge, you ſhall ever have a ſalt Cat for them to peck on, and that which is gathered from Saltpeter is the beſt: alſo they would have good ſtore of drie Sand, Gravell and Pibble, to bathe and cleanſe themſelves withall, and above all things great care taken, that no Vermine, or other Birds come into their boxes, eſpecially Sterlings, and ſuch like, which are great Eg-ſuckers. And thus much of the tame Pigeons.

Chap. XXII.

Of nouriſhing and fatting Hearnes, Puets, Gulls, and Bitters.

HEarnes are nouriſhed for two cauſes; either for Princes ſports, to make traines for the entring their Hawkes, or elſe to furniſh out the Table at great feaſts: the manner of bringing them up with leaſt charge, is to take them out of their neſts before they can flie, and put them into a large high Barne, where there is many high and croſſe beames for them to pearch on: then to have on the floore divers ſquare boords with rings in them, and betweene every boord, which would be two yards ſquare, to place round ſhallow tubs full of water; then to the boords you ſhall tie great gobbets of dogs fleſh, cut from the bones, according to the number which you feed: and be ſure to keepe the houſe ſweet, and ſhift the water oft, onely the houſe muſt be made ſo, that it may

raine

raine in now and then, in which the Hearne will take much delight. But if you feed her for the dish, then you shall feed them with Livers, and the intralls of Beasts and such like, cut in great gobbets; and this manner of feeding will also feed either Gull, Puet, or Bittern: but the Bittern is ever best to be fed by the hand, because when you have fed him, you may tie his beake together, or he will cast up his meat againe.

CHAP. XXIII.

Of feeding the Partridge, Phesant and Quaile.

THese three are the most daintiest of all other birds, and for the Phesant or Partridge you may feed them both in one roome, where you may have little boxes where they may run and hide themselves in divers corners of the roome; then in the midst, you shall have three wheat-sheaves, two with their eares upward, and one with the eares downward, and neere unto them shallow Tubs with water, that the Fowle may pecke the wheat out of the eares, and drinke at their pleasures, and by this manner of feeding, you shall have them as fat as is possible: as for your Quailes, the best feeding them is in long flat shallow boxes, each boxe able to hold two or three dozen, the formost side being set with round pins, so thick, that the Quaile may do no more but put out her head, then before that open side, shall stand one trough full of small chilter-wheat, and another with water, and thus in one fortnight or three weekes you shall have them exceeding fat.

CHAP. XXIIII.

Of Godwits, Knots, gray-Plovers, or Curlewes.

FOr to feed any of these Fowles, which are esteemed of all other the daintiest and dearest, fine chilter-

wheat

wheat and water given them thrice a day, morning, noone and night will doe it very effectually, but if you intend to have them extraordinary and crammed fowle, then you shall take the finest dreſt wheat-meale, and mixing it with milke, make it into paſte, and ever as you knead it, ſprinkle into it the graines of ſmall chilter-wheat, till the paſte be fully mixed therewith, then make litle ſmall crams thereof, and dipping them in water, give to every fowle according to his bigneſſe, and that his gorge be well filled: doe thus as oft as you ſhall find their gorges empty, and in one fortnight they will be fed beyond meaſure. And with theſe crams you may feed any fowle, of what kind or nature ſoever.

CHAP. XXV.

Of feeding of blacke-birds, Throſhes, Fetſares, or any ſmall Birds whatſoever.

TO feed theſe Birds, being taken old and wilde, it is good to have ſome of their kinder tame to mixe among them, and then putting them into great Cages of three or foure yards ſquare, to have divers troughes placed therein, ſome filled with Hips and Hawes, ſome with Hempe-ſeed, ſome with Rape-ſeed, ſome with Lin-ſeed, and ſome with water, that the tame teaching the wilde to eate, and the wild finding ſuch change and alteration of food, they will in twelve or fourteene daies grow exceeding fat and fit for the uſe of the Kitching.

The end of the Poultry.

Of Hawkes.

CHAP. I.

Of the generall Cures for all Diseases and Infirmities in Hawks, whether they be short-wing'd Hawks, or long-wing'd Hawks: and first of Castings.

HAwkes are divided into two kinds, that is to say, short-wing'd *Hawks*; as the *Gos-Hawke* and her *Tercell*, the *Sparrow-Hawke* and her *Musket*, and such like, whose wings are shorter than their traines, and doe belong to the *Ostringer*: and long-wing'd *Hawkes*, as the *Faulcon-gentle*, and her *Tercell*, the *Gerfaulcon* and *Ierkin*, the *Lanner*, *Merlin*, *Hobby*, and divers others, which belong unto *Faulconers*. Now for as much as their infirmities, for the most part, proceed from the indiscretion of their governours, if they flie them out of season, before they be inseamed, and have the fat, glut, and filthinesse of their bodies scoured and cleansed out, I thinke it not amisse, first to speake of *Hawkes Castings*, which are the naturallest and gentlest purges or scourings a *Hawke* can take, and doth the least offend the vitall parts. Therefore you shall know, that all *Ostringers* do esteeme plumage, and the soft feathers of small birds, with some part of the skin, to be the best casting a short-wing'd *Hawke* can take; and for the purging of her head, to make her tyer much upon Sheeps rumps, the fat cut away, and the bones well covered with Parcely. But for long-wing'd *Hawkes*, the best casting is fine Flannell, cut into square pieces of an inch

and

and a halfe ſquare, and all to jagged, and ſo given with a little bit of meat. By theſe caſtings you ſhall know the ſoundneſſe and unſoundneſſe of your *Hawke*: for when ſhe hath caſt, you ſhall take up the caſting, which will be like a hard, round pellet, ſowewhat long, and preſſe it betweene your fingers, and if you finde nothing but cleere water come from it, then it is a ſigne your *Hawke* is ſound and luſty, if there come from it a yellow or filthy matter, or if it ſtinke, it is a ſigne of rottenneſſe and diſeaſe; but if it be greaſie or ſlimie on the one ſide, then it is a ſigne the *Hawke* is full of greaſe inwardly, which is not broken nor diſſolved: and then you ſhall give her a ſcouring, which is a much ſtronger purgation, and of ſcourings the gentleſt, next caſting, is to take foure or five pellets of the yellow root of *Selladine*, well cleanſed from filth, being as bigge as great Peaſe, and give them out of water early in a morning, when the *Hawke* is faſting, and it will cleanſe her mightily. If you take theſe pellets of *Selladine*, and give them out of the oile of *Roſes*, or out of the ſirrup of *Roſes*, it is a moſt excellent ſcouring alſo, onely it will for an houre or two make the *Hawke* ſomewhat ſickiſh. If you give your *Hawke* a little *Aloes Cicatrine*, as much as a Beane wrap'd up in her meat, it is a moſt ſoveraigne ſcouring, and doth not onely avoid greaſe, but alſo killeth all ſorts of wormes whatſoever. Of ſcouring.

If your *Hawke* by over-flying, or too ſoone flying, be heated and inflamed in her body, as they are much ſubject thereunto: you ſhall then to coole their bodies, give them ſtones. Theſe ſtones are very fine white pibbles, lying in the ſands of gravelly rivers, the bigneſſe whereof you may chooſe according to the bigneſſe of your *Hawke*; as ſome no bigger than a Beane, and

those be for *Merlins* or *Hobbies*; some as bigge as two Beanes, and they are for *Faulkons-gentle*, *Lanners*, and such like; and some much bigger than they, which are for *Gerfalkons*, or such like. And these Stones if they be full of crests and welts, they are the better, for the roughest stone is the best, so it be smooth and not greesy. And you shall understand that Stones are most proper for long-wing'd-*Hawkes*, and the number which you shall give at the most, must never exceed fifteene, for seven's a good number, so is nine or eleven, according as you finde the *Hawkes* heate, more or lesse: and these Stones must ever be given out of faire water, having beene before very well pick'd and trim'd from all dirt or filthinesse. And thus much of *Hawkes* castings, scourings, and stones.

Chap. II.

Of Impostumes in Hawkes.

If your *Hawke* have any Impostume rising upon her, which is apparant to be seene, you shall take sweet *Raisins*, and boile them in *Wine*, and then crushing them, lay them warme to the sore, and it will both ripen and heale it: onely it shall be good to scoure your *Hawke* very well inwardly, for that will abate the Fluxe of all evill humours.

Chap. III.

Of all sorts of sore eyes.

For any sore eye there is nothing better than to take the juyce of *Ground-ivie*, and drop it into the eye. But if any filme or web be growne before you use this medicine, then you shal take *Ginger* finely searst, and blow it into the eye, and it will breake the filme, then use the juyce of *Ivie*, and it will weare it away.

Chap.

CHAP. IIII.

Of the Pantas in Hawkes.

THe Pantas is a stopping or shortnesse of winde in *Hawkes*. And the cure is to give her the scouring of *Belladine*, and the oile of *Roses*, and then to wash her meat in the decoction of *Colts-foot*, and it will help her. The cure.

CHAP. V.

Of casting the gorge.

THis is when a *Hawke*, either through meat which she cannot digest, or through surfeit in feeding, casteth up the meat which he hath eaten, which is most dangerous: And the only way to cure her is to keep her fasting, and to feed her with a very little at once of warme bloody meat, as not above halfe a *Sparrow* at a time, and be sure never to feed her againe till she have indued the first. The cure.

CHAP. VI.

Of all sorts of Wormes or Fylanders in Hawkes.

WOrmes or Fylanders, which are a kind of wormes in *Hawkes*, are either inward or outward; Inward, as in the guts or intralls, or outward, as in any joint or member: If they be inward, the scouring of *Aloes* is excellent to kill them, but if they be outward, then you shall bathe the place with the juyce of the herb *Aweos* mix'd with *Honey*.

CHAP. VII.

Of all swellings in Hawkes feet, and of the Pin in the foot.

FOr the Pin in the sole of the *Hawkes* foot, or for any swelling upon the foot, whether it be soft or hard, there is not any thing more soveraigne, then to bathe it in *Pitch-greese* molten and applyed to exceeding hot,

and then to fold a fine Cambricke rag dipt in the same grease about the sore.

Chap. VIII.

Of the breaking of a Pounce.

The cure.

THis is a very dangerous hurt in *Hawkes*, especially in *Gerfalkens*, for if you shall breake or rive her Pounce, or but coap it so short that she bleed, though it be very little, yet it will danger her life. The cure therfore is presently upon the hurt, with a hot wyar to seare it till the blood staunch, and then to drop about it *Pitch* of Burgundy, and *Waxe* mixt together, or for want thereof, a little hard Merchants *Waxe*, and that will both heale it, and make the Pounce grow.

Chap. IX.

Of bones broke, or out of joint.

IF your *Hawke* have any bone broke or misplaced, you shall after you have set it, bath it with the oile of *Mandrake* and *Swallowes* mixt together, and then splent it, and in nine dales it will be knit and have gotten strength.

Chap. X.

Of inward bruisings in hawkes.

IF your *Hawke* either by stooping amongst trees, or by the incounter of some fowle, get any inward bruise, which you shall know by the blacknesse or bloodinesse of their mutes, you shall then anoint her meate every time you feede her with *Sperma-Cœti* till her mutes be cleare againe, and let her meat be warme and bloody.

Chap. XI.

Of killing of Lice.

IF your *Hawke* be troubled with Lice, which is a generall infirmity, and apparant, for you shal see them creep all over on the outside of her feathers, if she stand but in the

the aire of the fire. You shall bathe her all over in warme *Water* and *Pepper*, small beaten, but be sure that the *Water* be not too hot, for that is dangerous, neither that it touch her eyes.

Chap. XII.

Of the Rye in Hawkes.

THis disease of the Rye in *hawkes* proceedeth from two causes; the one is cold and poze in the head, the other is fowle and most uncleanly feeding, the Falkoner being negligent to feake and cleanse his *hawks* beake and nares, but suffering the blood and filthinesse of meat to sticke and cleave thereunto. For indeede, the infirmity is nothing else but a stopping of the nares, by meanes whereof the *hawke* not being able to cast and avoide the corruption of her head, it turnes to putrifaction, and in short space kills the *hawke*: and this disease is a great deale more incident to short-wing'd Hawkes then to long. The signes whereof are apparant by the stopping of the nares. The cure is, to let your Hawke eyer much upon fatte wie and bony meat, as the rumps of Mutton (the fat being taken away) or the pinions of the wings of fowle, either being well lapt in a good handfull of *Parsley*, and forcing her to straine hard in the tearing of the same, and with much diligence to cleanse and wash her beake cleane with water after her feeding, especially if her meat were warme and bloody.

The cure.

Chap. XIII.

Of the Frounce.

THe Frounce is a cankerous ulcer in a *Hawkes* mouth, got by over-flying, or other inflamation proceeding from the inward parts; foule and uncleane food is also a great ingenderer of this disease. The signes are a sorenesse in the *Hawkes* mouth, which sore will be furr'd and co-

ver'd over with white scurfe or such like filthinesse, also if the ulcer be deepe and ill, the *Hawke* will winde and turne her head awry, making her beake stand upright: and the cure is to take *allome*, and having beaten it to fine powder, mixe it with strong *Wine-vineger*, till it be somewhat thicke, and then wash and rub the sore therewith, till it be raw, and that the scurfe be cleane taken away. Then take the juyce of *Lollage*, and the juyce of *Raddish*, and mixing it with *Salt*, annoint the sore therewith, and in few dayes it will cure it.

The cure.

CHAP. XIV.

Of the Rhume.

THe Rhume is a continuall running or dropping at the *hawkes* nares, proceeding from a generall cold, or else from over-flying, and then a sudden cold taken thereupon: it stops the head, and breeds much corruption therein, and the signes are the dropping beforesaid, and generall heavinesse, and sometimes a swelling of the head.

The cure.

The cure is, to take the juyce of *Beets*, and squirt it often to the *hawkes* nares. Then when you feed her, wash her meat in the juyce of *Brookeweed*, and it will quickly purge and scour her sound.

CHAP. XV.

Of the Formicas in hawkes.

THe Formicas in *Hawkes*, is a hard horne growing upon the beake of a *hawke*, ingendred by a poisonous and cankerous worme, which freeing the skin and tender yellow welt between the head and the beake, causeth that hard horne or excression to grow and offend the bird. The signe is the apparant sight of the horne.

The cure.

And the cure is, to take a little of a Bulls *gall*, and boyling it with *Aloes*, annoint the *hawkes* beake therewith morning

ning and evening, and it will in very few daies take the horne away.

CHAP. XVI.

Of the Fistula in hawkes.

THe Fistula in *hawkes*, is a cankerous hollow ulcer in any part of a *hawkes* body, as it is in men, beasts, or any other creature: the signes are a continuall mattering or running of the sore, and a thin sharpe water like lie, which as it falls from the same, will fret the sound parts as it goeth. The cure is, with a fine small wyar, little stronger than a Virginall-wyar, and wrapt close about with a soft sleaved silke, and the point blunt and soft, to search the hollownesse and crookednesse of the ulcer, which the pliantnesse of the wyar will easily do, and then having found out the bottome thereof, draw forth the wyar, and according to the bignesse of the Orifice, make a tent of fine Lint being wet, which may likewise bend as the wyar did, and be within a very little as long as the ulcer is deep, for to tent it to the full length is ill, and will rather increase then diminish the Fistula: and therefore ever as the Fistula heales, you must take the tent shorter and shorter. But to the purpose; when you have made your tent fit, you shall first take strong *Allome* water, and with a small Syringe, squirt the sore three or foure times therewith, for that will cleanse, dry, and scoure every hollownesse in the ulcer: then take the tent, and annoint it with the juyce of the herbe *Roberte*, *Vinegar*, and *Allome* mixed together, and it will dry up the sore. The Cure.

CHAP. XVII.

Of the privie evill in hawkes.

THe privie evill in *hawkes* is a secret heart-sickenesse, procured either by over-flying, corrupt food, cold, or

or other disorderly keeping, but most especially for want of Stones, or casting in the due season: the signes are heavinesse of head and countenance, evill enduing of her meat, and foule blacke mutings. The cure is, to take morning and evening a good piece of a warme *Sheeps* heart, and steeping it either in new *Asses* milke, or new *Goats* milke, or for want of both, the new milke of a red *Cow*, with the same to feed your *Hawke* til you see her strength and lust recovered.

The cure.

Chap. XVIII.

Of wounds in Hawkes.

Hawkes by the crosse incounters of fowles, especially the *Heron*, by stooping amongst bushes, thornes, trees, and by divers such accidents, doe many times catch sore and most grievous wounds: the signes whereof are the outward apparance of the same. And the cure is, if they be long and deepe, and in places that you may conveniently, first to stitch them up, and then to salve them up with a little ordinary *Balsamum*, and it is a present remedy. But if it be in such a place as you cannot come to stitch it up, you shall then onely take a little *Lint*, and dip it in the juyce of the herbe called *Mouseare*, and apply it to the sore, and it will in short space heale it. But if it be in such a place, as you can by no meanes bind any thing thereunto, you shall then onely annoint or bathe the place with the aforesaid juyce, and it will heale and dry up the same in very short time; the juyce of the greene herbe, called with us, *English Tobacco*, will likewise doe the same: for it hath a very speedy course in healing and cleansing, as hath beene approved by divers of the best Faulconers of this Kingdome, and other Nations.

The cure.

Chap.

Chap. XIX.

Of the Apoplexie, or falling evill in Hawkes.

THe Apoplexy or Falling-evill in *Hawkes*, is a certaine *Vertigo* or dizzineſſe of the braine, proceeding from the oppreſſion of cold humors, which doe for a certaine ſpace numb, and as it were, mortifie the ſenſes: the ſignes are a ſudden turning up the *Hawkes* head, and falling from her pearch without bating, but onely with a generall trembling over all the body, and lying ſo, as it were, in a trance a little ſpace, ſhe preſently recovereth, and riſeth up againe, but is ſick and heavie many houres after. The cure therefore is, to gather the herbe *Aſtarica*, when the Moone is in the waine, and in the ſigne *Virgo*, and taking the juyce thereof to waſh your *Hawkes* meate therein, and ſo feed her, and it hath beene found a moſt ſoveraigne medicine. The cure.

Chap. XX.

Of the purging of Hawkes.

THere is nothing more needfull to *Hawkes*, than purgations and cleanſings; for they are much ſubject to fat and fouleneſſe of body inwardly, and their exerciſe being much and violent, if there be neglect, and that their glut be not taken away, it will breed ſickneſſe and death; therefore it is the part of every skilfull Fauleoner to underſtand how, and when to purge his *Hawke*, which is generally ever before ſhee be brought to flying: and the moſt uſualleſt ſeaſon for the ſame, is, before the beginning of *Autumne*; for commonly knowing Gentlemen will not fly at the *Partridge* till Corne be from the ground; and if he prepare for the River early, hee will likewiſe beginne about that ſeaſon: the beſt purgation then that you can give your *Hawke*, is *Aloes Cicatrine*, wrap'd up in warme meate, the quantitie of a French Peaſe,

Peaſe, and ſo given the *Hawke*, to eat ever the next morning after ſhe hath flowne at any traine, or taken other exerciſe, whereby ſhe might breake or diſſolve the greaſe within her.

Chap. XXI.

For a Hawke that cannot mute.

IF your *Hawke* cannot mute; as it is a common infirmity which happeneth unto them; you ſhall take the leane of Porke being newly kild, whileſt it is warme, to the quantity of two *Wall-nuts*, and lapping a little *Aloes* therein, give it to the *Hawke* to eate, and it will preſently help her. There be divers good Faulkoners, in this caſe, which will take the roots of *Sellandine*, and having cleanſed it, cut it into little ſquare pieces as big as Peaſe, ſteepe it in the oile of *Roſes*, and ſo make the *Hawke* ſwallow downe three or foure of them; and ſure this is very good and wholeſome, only it will make the *Hawke* exceeding ſicke for two or three houres after. Neither muſt the *Hawke* be in any weake ſtate of body, when this later medicine is given her. Alſo, you muſt obſerve to keepe your *Hawke* at thoſe times exceeding warme, and much on your fiſt, and to feed her moſt with warme birds, leſt otherwiſe you cling and dry up her intralls too much, which is both dangerous and mortall.

Chap. XXII.

The aſſureſt ſigne to know when a Hawke is ſicke.

HAwkes are generally of ſuch a ſtout, ſtrong, and unyeelding nature, that they will many times cover and conceale their ſickneſſes ſo long till they be growne to that extremity, that no helpe of Phyſicke or other knowledge can availe for their ſafeties: for when the countenance, or decay of ſtomach, which are the ordi-

nary

nary outward faces of infirmities, appeare, then commonly is the diſeaſe paſt remedy: therefore to prevent that evill, and to know ſickneſſe whileſt it may be cured, you ſhall take your *Hawke*, and turning up her traine, if you ſee that her tuell or fundament either ſwelleth or looke thred, or if her eyes or nares likewiſe be of a fiery complexion, it is a moſt infallible ſigne that the *Hawke* is ſicke, and much out of temper.

CHAP. XXIII.

Of the Fever in Hawkes.

Hawkes are as much ſubject to Fevers, as any creatures whatſoever, and for the moſt part they proceede from over-flying, or other extraordinary heates, mix'd with ſudden colds, given them by the negligence of unskilfull keepers: and the cure is, to ſet her in a coole place upon a pearch wrapt about with wet clothes, and feed her oft with a little at a time of Chickens fleſh, ſteeped in water, wherein hath beene ſoaked *Cowcumber-ſeeds*. But if you find by the ſtopping of her nares or head, that ſhe is offended more with cold than heat, then you ſhall ſet her in a warme place, and feed her with the bloody fleſh of Pigeons, waſh'd either in white *Wine*, or in water, wherein hath beene boil'd either *Sage*, *Marjoram*, or *Camomile*. The Cure.

CHAP. XXIIII.

To helpe a Hawke that cannot digeſt or indew her meat.

If your *Hawke* be hard of digeſtion, and neither can turne it over, nor empty her panel, which is very often ſeene, you ſhall then take the heart of a Frog, and thruſt it downe into her throat, and pull it backe againe by a thread faſtened thereunto once or twice ſuddenly, and it wil either make her indew or caſt her gorge preſently.

CHAP.

Chap. XXV.
Of the Gout in Hawkes.

Hawkes, especially those which are free and strong strikers, are infinitely subject to the Gout, which is a swelling, knotting, and contracting of a *Hawkes* feet. The cure thereof is, to take two or three drops of blood from her thigh-veine, a little above her knee, and then annoint her feet with the juyce of the herbe *Hollyhocke*, and let all her pearch be annointed also with *Tallow*, and the juyce of that herbe mixt together. Now, if this disease (as oft it happeneth) be in a *Hawkes* wing, then you shall take two or three drops of blood from the veine under her wing, and then anoint the pinions and inside thereof with *Vnguentum de Althea*, made very warme, which you may buy of every *Pothecary*.

The cure.

Chap. XXVI.
Of the staunching of blood.

IT is a knowne experience amongst the best Faulconers, that if the *Gerfaulcon* shall but lose two or three drops of blood, it is mortall, and the *Hawke* will die suddenly after, which to prevent, if the blood proceed from any pounce, which is most ordinary, then upon the instant hurt, you shall take a little hard Merchants waxe, and drop it upon the sore, and it will presently stop it; if it be upon any other part of the *Hawkes* body, you shall clap thereunto a little of the soft Downe of a *Hare*, and it will immediately stanch it; and without these two things a good Faulconer should never goe, for they are to be used in a moment. And thus much of the *Hawke*, and her diseases.

The end of the Hawke.

Of Bees.

Chap. I.

Of the nature, ordering, and preservation of Bees.

OF all the creatures which are behoovefull for the use of man, there is none more ne- The nature of Bees.
ceſſary, wholeſome, or more profitable than the Bee, nor any leſſe troubleſome, or leſſe chargeable. To ſpeake then firſt of the nature of Bees, it is a creature gentle, loving, and familiar about the man, which hath the ordering of them, ſo he come neat, ſweet and cleanly amongſt them: otherwiſe, if he have ſtrong and ill-ſmelling ſavors about him, they are curſt and malicious, and will ſting ſpitefully: they are exceeding induſtrious, and much given to labour, they have a kinde of government amongſt themſelves, as it were a well ordered common-wealth: every one obeying and following their king or commander, whoſe voyce (if you lay your eare to the hive) you ſhall diſtinguiſh from the reſt, being louder and greater, and beating with a more ſolemne meaſure. They delight to live amongſt the ſweeteſt herbs & flowers that may be; eſpecially *Fennel*, and wall *Gilly flowers*, and therfore their beſt dwellings are in *gardens*: and in theſe *gardens*, or neer adjoyning thereunto, would be divers fruit-trees growing, chiefly *Plumb-trees*, or *Peach-trees*, in which, when they caſt, they may knit, without taking any farre flight, or wandring to find out their reſt: this *Garden* alſo would be well fenced, that no Swine nor other cattel may come therein, as well for overthrowing their hives, as alſo for offen-

offending them with other ill-savours. They are also very tender, and may by no means indure any cold: therefore you must have a great respect to have their houses exceeding warme, close, and tight, both to keepe out the frosts and snowes, as also the wet and raine; which if it once enter into the hive, it is present destruction.

Of the Bee-hive.

To speake then of the Bee-hive, you shall know there be divers opinions touching the same, according to the customes and natures of Countries; for in the Champaine Countries, where there is very little store of woods, they make their hives of long Rie-straw, the rolls being sowed together with Bryers, and these hives are large and deepe, and even proportioned like a *Sugar-loafe*, and crosse-barr'd within, with flat splints of wood, both above, and under the middest part: In other Champaine Countries, where there wanteth Rie-straw, they make them of Wheat-straw, as in the West Countries, and these hives are of a good compasse, but very low and flat, which is naught: for a hive is ever better for his largenesse, and keepeth out raine best when it is sharpest. In the wood countries, they make them of cloven hassells, watteld about, broad splints of Ashe, and so formed as before I said, like a *Sugar-loafe*. And these hives are of all other the best, for they be large and smooth within, for the straw-hive is subject to breed Mice, and nothing destroyeth Bees sooner than they, yet you must be governed by your ability, and such things as the soyle affords.

Of the trimming of the hive.

Now for the Wood-hive, which is the best, you shall thus trim and prepare it for your Bees: you shall first make a stiffe morter of Lime and Cow-dung, mixed together; and then having crosse-barr'd the hive within, daube the out-side of the hive with the morter at least

least three inches thicke, downe close unto the stone, so that the least aire may not come in: then taking a Rye-sheafe, or Wheate-sheafe or two that is baled and not thrashed, and chusing out the longest Straws, bind the eares together in one lumpe, put it over the Hive, and so as it were thatch it all over, and fixe it close to the Hive with an old hoope or garth, and this will keepe the Hive inwardly as warme as may be: also before you lodge any Bee in your hive, you shall perfume it with *Iuniper*, and rub it all within with *Fennell*, *Isope*, and *Time-flowers*, and also all the stone upon which the Hive shall stand.

Now for the placing of your Hives, you shall take three long thick stakes, cut smooth and plaine upon the heads, and drive them into the earth triangular wise, so that they may bee about two foot above the ground: then lay over them a broad smooth paving stone, which may extend every way over the stakes about halfe a foot, and upon the stone set your Hive, being lesse in compasse then the stone by more than five inches every way, and see the doore of your Hive stand directly upon the rising of the Morning Sunne, inclining a little unto the South-ward: and bee sure to have your Hives well sheltred from the North-winds, and generally from all tempestuous weather: for which purpose if you have sheads to draw over them in the winter, it is so much the better. And you shall place your hives in orderly rowes one before another, keeping cleane Alleyes betweene them every way, so as you may walke and view each by it selfe severally. The placing of Hives.

Now for the casting of your Bees, it is earlyer or later in the yeare, according to the strength & goodnesse of the stocke, or the warmth of the weather. The usuall time for casting, is from the beginning of May, till the The casting of Bees, and ordering of swarms.

middle of Iuly: and in all that time you muſt have a vigilant eye, or els ſome ſervant to watch their riſing, leſt they fly away, and knit in ſome obſcure place farre from your knowledge. Yet if you pleaſe you may know which Hives are ready to caſt a night before they doe caſt, by laying your eare after the Sunne-ſet to the Hive, and if you heare the Maſter Bee above all the reſt, in a higher and more ſolemne note, or if you ſee them lie forth upon the ſtone, and cannot get into the Hive, then be ſure that ſtocke will caſt within few houres after.

As ſoone as you can perceive the ſwarme to riſe, and are got up into the ayre (which will commonly be in the height and heat of the Sun) you ſhall take a Braſſe Baſon, Pan or candleſticke, and making a tinkling noiſe thereupon, and they are ſo delighted with Muſicke, that by the ſound thereof, they will preſently knit upon ſome branch or bough of a tree. Then when they are all upon one cluſter, you ſhall take a new ſweet Hive well dreſt, and rub'd with *hony* and *fennel*, and ſhake them all into the Hive, then having ſpread a faire ſheet (upon the ground) ſet the hive thereon, and cover it all cleane over cloſe with the ſheet, and ſo let it ſtand till after Sunne-ſet, at which time the Bees being gathered up to the top of the hive (as their nature is) you ſhal ſet them upon the ſtone, having rub'd it well with *Fennel*, and then daube it cloſe round about with *Lime* and *Dung* mixt together, and only leave them a doore or two to iſſue out and in at. There be ſome ſtockes that will caſt twice or thrice, and ſome times in a yeare, but it is not ſo good, for it will weaken the ſtocke too much, therefore to keepe your ſtocke in ſtrength and goodneſſe, it is good not to ſuffer any to caſt above twice at the moſt.

Againe, you ſhal with pieces of Brick, or other ſmooth ſtone,

ſtones, raiſe the ſtocke in the night three or foure inches above the ſtone, and then daube it cloſe againe, and the Bees finding houſe-roome will fall to worke within, and not caſt at all; and then will that ſtocke bee worth two others: and in the ſame manner, if you had the yeare before any ſmall ſwarmes, which are likely to caſt this yeare; or if you have any early ſwarmes this yeare, which are likely to caſt at the latter end of the yeare, both which are often found to be the deſtruction of the ſtockes; in either of theſe caſes, you ſhall inlarge the Hive as it is before ſaid, by rayſing it up from the ſtone, and it will not onely keepe them from caſting, but make the ſtocke better, and of much more profit, for that Hive ever which is of the moſt weight is of the beſt price.

Now when you have marked out thoſe old ſtockes which you intend to ſell, (for the oldeſt is fitteſt for that purpoſe) you ſhall know that the beſt time to take them, is at *Michaelmas*, before any froſts hinder their labour: and you ſhall take them ever from the ſtone in the darke of night, when the aire is cold, and either drowne them in water, or ſmother them with Fusballs, for to chaſe them from their Hives, as ſome doe is naught, becauſe all ſuch Bees as are thus frighted from their Hives doe turne robbers and ſpoyle other ſtocks, becauſe that time of the yeare will not ſuffer them to labour and get their owne livings. Of ſelling hives.

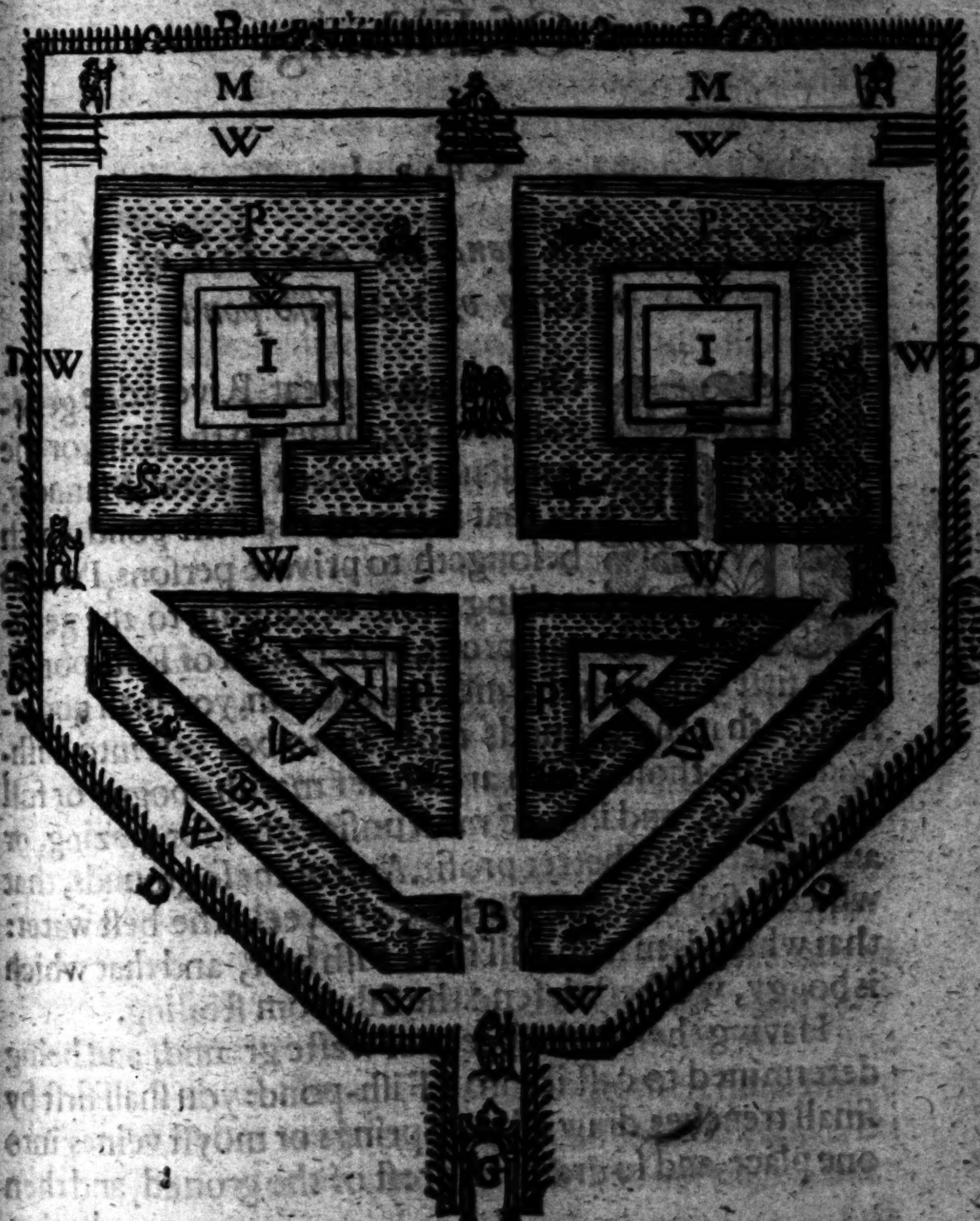
Now, if you have any weake ſwarmes which comming late in the yeare cannot gather ſufficient of Winter proviſion; in this caſe, you ſhall feede ſuch ſtockes by daily ſmearing their ſtone before the place of their going in and out with Hony and Roſe-water mixt together, and ſo you ſhall continue to doe all the ſtrength of the Winter, till the warmth of the Spring, & the Sun-ſhine bring The preſervation of weake ſtocks.

forth of Flowers for them to labour upon. You shall continually looke that no Mice, Dares, and such like vermine breed about hives, for they are poysonous, and will make Bees forsake their hives.

Now lastly, if any of your stockes happen to dye in the Winter (as amongst many, some must quaile) you shall not by any meanes stirre the stocke, but let it remaine till the Spring, that you see your Bees beginne to grow busie; then take up the dead stocke, and trimme it cleane from all filth, but by no meanes stirre or crush any of the Combes: then dash the Combes, and besprinkle them, and besmeare all the inside of the hive with hony, rose-water, and the juyce of fennell, mixt together, and daube all the stone therewith. Also then set downe the hive againe, and daube it, as if it had never beene stirred, and bee well assured that the first Swarme which shall rise, either of your owne, or of any Neighbour of yours within the compasse of a mile, it will knit in no place, but within that hive, and such stocke will bee worth five others; because they finish halfe their worke finisht at their first entrance into the hive, and this hath been many times approved by those of the most approvedst experience. And thus much touching the Bee and his Nature.

A

A Platforme for Ponds, which the Printer hath added to this ensuing discourse, for the better satisfaction and delight of such as having a conuenient plot of ground for the same purpose shall be desirous to make any Ponds for the increase and store of Fish.



G. The Gate.

D. The Ditch and Quick set hedge.

W. The Walkes.

B. The Bridge.

Br. The Brooke.

P. The Ponds.

I. The Penilet.

M. The Mount.

S. The Spring head.

The Walks about the ponds may be planted with Fruit-trees or Wilowes.

Of Fishing.

Chap. I.

Of Fishing in generall, and first of the making of the Fish pond.

FOr as much as great Rivers doe generally belong either to the King, or the particular Lords of severall Mannors, & that it is only the Fish-pond which belongeth to private persons, I will in a thing most belonging to the generall profit, here intreat of Fish-ponds. And first touching the making of them, you shall understand, that the grounds most fit to bee cast into Fish-ponds, are those which are either marish, boggy or full of Springs, and indeed most unfit either for grazing, or any other use of better profit. And of these grounds, that which is full of cleare Springs will yeeld the best water: that which is marish will feed Fish best, and that which is boggy, will best defend the fish from stealing.

Having then such a peece of waste ground, and being determined to cast it into a Fish-pond: you shall first by small trenches, draw all the Springs or moyst veines into one place, and so draine the rest of the ground, and then having

having mark't out that part which you mean to make the head of your pond, which although it be the lowest part in the true levell of the ground, yet you must take it the highest in the eye; you shall first cut the trench of your Flood-gate, so as the water may have a swift fall, when you meane at any time to let it out; and then on each side of the trench drive in great stakes of sixe foot in length, and six inches square, of Oke, Ash, or Elme, but Elme is the best: and these you must drive in rowes within foure foote one of another, at least foure foote into the earth, as broad, and as farre off each side the Flood gate, as you intend the head of your Pond shall goe: then beginne to digge your Pond of such compasse as your ground will conveniently give leave, and all the earth you digge out of the Pond, you shall carry and throw amongst the stakes, and with strong rammers ram the earth hard betweene them till you have covered all the stakes; then drive in as many more new stakes besides the heads of the first, and then ramme more earth over and above them also; and thus doe, with stakes above stakes, till you have brought the head sides to such a convenient height as is fitting. And in all this worke have an especiall care that you make the inside of your bankes so smooth, even, and strong, that no current of the water may weare the earth from the stakes.

You shall digge your Fish-Pond not above eight foot deepe, and so as it may carry not above sixe foot water.

You shall pave all the bottome, and bankes of the Pond with large sods of Plot-grasse, which naturally growes under water, for it is a great feeder of Fish: and you shall lay them very close together, and pinne them downe fast with small stakes and windings. You shall upon one side of the Pond, in the bottome, stake

fast divers Bavens or Faggots of brush wood, wherein your fish shall cast their spawne, for that will defend it from destruction; and at another place you shall lay fods upon fods, with the grasse sides together, in the bottome of the Pond, for that will nourish and breed Eeles, and if you sticke sharp stakes slaunt-wise by every side of the Pond, that will keepe theeves from robbing them. When you have thus made your Ponds, and have let in the water, you shall then store them. Carpe, Breame and Tench by themselves: and Pike, Pearch, Eele, and Tench by themselves: for the Tench being the Fishes Physician is seldome devoured: also in all Ponds you shall put good store of Roch, Dace, Loch and Menow, for they are both food for the greater fishes, and also no uncomely in any good mans dish. You shall to every melter put three Spawners, and some put five, and in three yeares the increase will be great, but in five hardly to bee destroyed. And thus much for Ponds and their storings.

Chap. II.

Of the taking of all sorts of Fish, with Nets, or otherwise.

IF you will take Fish with little or no trouble, you shall take of *Salarmoniacke* a quarter of an ounce, of young Chives, as much, and as much of a Calves Keil, and beate them in a Morter untill it bee all one substance, and then make Pellets thereof, and cast them into any corner of the Pond, and it will draw thither all the Carp, Breame, Chevin, or Barbel, that are within the water, then cast your shove-net beyond them, and you shall take choise at your pleasure. If you will take Roch, Dace, or any small kind of Fish, take Wine Lees & mix it with Oyle, and hang it in a Chimney-corner, till it be dry, or

looke

look black, and then putting it into the water, they will come ſo abundantly to it that you may take them with your hand. If you will take Trout, or Grailing; take two pound of wheate bran, halfe ſo much of white Peaſe, and mixe them with ſtrong Brine, beare it till it come to a perfect paſte; then put pellets thereof into any corner of the water, and they will reſort thither, ſo as you may caſt your net about them at your pleaſure. But if you will take either Pearch or Pike, you ſhall take ſome of a beaſts Liver, blacke Snailes, yellow Butter-Flies, hogges bloud, and Opoponax, beare them all together, and having made a paſte thereof, put it into the water, and bee aſſured that as many as are within forty paces thereof will preſently come thither, and you may take them at your pleaſure.

Laſtly, if you take eight drams of Cocke-ſtones, and twice ſo much of the kirnels of Pynapple trees burnt, and beate them well together, and make round balles thereof, and put it into the water, either freſh or ſalt, any Salmon or great Fiſh will preſently reſort thither: and you may take them either with net or otherwiſe.

Alſo, it is a moſt approved experiment, that if you take bottles made of hay, and greene oziers, or willow mixt together, and ſinke them downe in the midſt of your pond, or by the banckſides, and ſo let them reſt two or three dayes, having a cord ſo faſtened unto them that you may twich them upon land at your pleaſure: and beleeve it, all the good Eeles which are in the Pond will come into thoſe Bottles, and you ſhall take them moſt abundantly: and if you pleaſe to baite thoſe bottles, by binding up ſheepes guts, or other garbage of beaſts within them, the Eeles will come ſooner, & you

may

may draw them oftner, and with better assurance. There bee other wayes besides these to take Eeles, as with Weeles, with the Eele-speare, or with bobbing for them with great wormes; but they are so generally knowne and practised, and so much inferiour to this already shewed, that I hold it a needlesse and vaine labour to trouble your eares with the repetition of the same; and the rather, sith in this worke I have laboured onely to declare the secrets of every knowledge, and not to run into any large circumstance of those things which are most common and familiar to all men. And thus much of Fish and Fish-ponds, and their generall knowledge.

Now as touching the Angle and the secrets thereto belonging, you shall find it at large handled in the next Booke called,

Country Contentments.

FINIS.

BRITISH MUSEUM 7.3071

Country Contentments:

OR, THE

HVSBANDMANS RECREATIONS.

CONTAYNING THE WHOLSOME Experiences in which any man ought to Recreate himselfe, after the toyle of more serious businesse.

As namely, Hunting, Hawking, Coursing with Greyhounds, and the lawes of the Leash, Shooting in Longbow or Crosbow, Bowling, Tennis, Baloone. The whole Art of Angling, and the vse of the Fighting Cock.

By G. M.

The fifth Edition.

Newly Corrected, Enlarged, and Adorned with many excellent Additions, as may appeare by this marke, ☞

LONDON,
Printed by *Thomas Harper* for *Iohn Harison*, at the golden Vnicorne in Pater-noster Row. 1633.

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By G. M.

BRITISH MUSEUM

Newly Corrected, Enlarged [illegible] with many Excellent Additions, as may [illegible]

LONDON
Printed by Thomas Harper for Iohn Harison and are to be sold at his shop [illegible] Paternoster Row. 1635.

To the thrice Noble and vertuous Maintainer and furtherer of all lawfull and worthy pleasures, Sir THEODORE NEVVTON, Knight.

Sir, howsoeuer banished by the necessity of mine affaires from your presence (in which I once built the best and happiest estate of my life, beginning to mine it because I found you did imploy it,) yet can I neuer be separated from your remembrance, because it is all the ioy which is likely to liue and die with me; witnesse my Soule that shewes me no worldly lessen, so much as the beneficiall fauours I haue reapt from your vertue, which to acknowledge with a more earnest and serious fervency, I haue sent this poore Booke to kisse your hand, and speake to you in plain and short rules those speeches which you haue beene willing to heare from my mouth, not doubting but they shall giue you satisfaction, and make mee liue both with you, and the inheritours of your vertues, to the last age: they are true and easie, drawne from these last times, not borrowed to bestow with a flattering insinuation, but faithfully drawne from Art, and from those experiments which I once thought should haue slept in the graue with me: but hauing liued so long from your eyes (which I protest my soule truly loues) I studied to thanke what grateful Embassadour I might send to speak I loue you; and finding none (which I thought you would better heare then this,) I furnisht him with the best instructions I could, and sent him only attyred in his owne vertue, to tell you, what I doe, and what I will doe, is, euer to liue and dye at your Seruice.

Geruase Markham.

To the best disposed Readers.

MAny and sundry may see the constructions and censures of this Booke (Courteous and well disposed Reader) because I haue in former time written so largely of some part of the subiect contained herein; but I would haue no man mistaken in his owne preiudicate opinion, but truly vnderstand, that this is neither epitomy, relation, extraction, nor repetition either of mine owne, or any other Author whatsoeuer, but a plaine forme of doing things by a neerer and more easie and safer way then euer hath hitherto been discouered, drawne from out latest experiments in true Art, and finding a neerer way to our ends by many degrees: for what before could not be done in diuers yeares, here you shall see how to effect in few months, and what wee bestowed months vpon to seeke, now wee may finde in few weekes. The reasons which induc't me to this labour were these; First to giue satisfaction to the friends and fauorers of my former works, that when they heare men discourse of these passages to our delights, they may yet know that the first was neither ill nor vaine, but what now is deriued from it, and that albeit we may be lesse curious, yet the curiosity is not altogether vnprofitable, but both ioyned together may make an absolute vnderstanding. Then to giue ease and light burthen to the heauy and duller memory, whom the tediousnesse of a great worke may discourage: and lastly, because my former labour is vtterly out of print, whereby the Kingdome is depriued the benefit I intended, I thought good to haue something liuing of lesse price, and as great (perhaps greater) profit, which should satisfie all vertuous minds in any thing required, within the compasse of those former shewed Recreations: not doubting but howsoeuer men may first giue a light surmay to these papers, yet if they once take paines to read them, they will after affirme them worthy of choice bosomes: And with this setled resolution I leaue them to thy view, and thee to thine owne rest.

Euer one, Gernase Markham.

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COUNTREY CONTENTMENTS:

OR,

The Husband-mans Recreation:

containing the wholesome Exercises,

in which any man ought to Recreate himselfe, after the toile of more serious BUSINESSE.

The first Booke.

CHAPTER. I.

Of Hunting, and of all the particular knowledges belonging thereunto.

HAving already in my former Worke of the *English-Husbandman*, set forth in sufficient largeneſſe, the toile and industrious labours of the carefull *Husbandman*, and how both his mind and body ought in every season to be imployed, for the effecting and bringing forth of those wholesome profits, which God hath appointed for the maintenance of him and his Family. And in the Booke last going before, called *Cheape and Good*, shewed the Cure and maintenance of his Cattell and Creatures bred by him, and his labours, through Gods great Blessings.

I thinke it not amisse here to speake of those lawfull and praise-worthy exercises or recreations, in which (with Gods feare, and care of not offending his neighbour) he may soberly spend those houres which hee shall bestow in the cheerfull reviving and stirring up of his spirits, being formerly wearied or foredone with the heavie toile of more unpleasant (though more profitable) studies, both because it is intended, that a man so good and vertuous as the true *Husband-man* is, should not be deprived any comfort or felicity, which the earth, or the creatures of the earth can afford to him, being indeed the right Lord and Master (next under God) of them both; as also for the necessity thereof, being the strength and inabler of the minde, to undergoe the weightiest affaires that can any way poise, or beare downe imagination.

The necessity and use of recreation.

Hence it comes, that the heathen Sages, or wise men of the first world, founded with their lawes, their feasts, with their *Labours* their *Olympickes*, and with their warfare, their *Triumphs*, nay, at this day we see the severest Pedants will give their schollers their play-day; and the most covetous masters will binde their hirelings but to certaine houres; every toile exacting (as out of duty) some time for recreation: Neither was there any *Stoicke* found so cruell, either to himselfe or nature, but at some time or other he would unbend his mind, and give it liberty to stray into some more pleasant walkes, then the mirie waies of his owne wilfull resolutions. As I have observed in the course of many men of exceeding strict lives, to whom all be severity of profession, infirmity of body, and age, or such like have taken away all actuall recreation, yet have their mindes begot unto themselves some habits or customes of delight, which have in as large measure given them contentment, whether

they were their owne, or borrowed, as if they had been the ſole Actors of the ſame.

But why wade I thus far in this untroubled ſtreame; let it ſuffice then, that as Recreation is moſt neceſſary, ſo to none it is more due, then to the *Husband-man*: and herein you may not expect, that I will goe about to elect and preſcribe what recreation hee ſhall uſe, binding all men to one pleaſure? God forbid: my purpoſe is meerly contrary: for I know in mens recreations, that nature taketh to her ſelfe an eſpeciall prerogative, and what to one is moſt pleaſant, to another is moſt offenſive; ſome ſeeking to ſatisfie the minde, ſome the body, and ſome both in a joynt motion.

The diverſity of Chaſe.

I will therefore, as far as my skill and knowledge will extend, figure forth to the life every ſeverall recreation, leaving no limbe or member imperfect, and then leave unto the choice of the *Husband man*, that which ſhall beſt agree with his ſpirit, not doubting, but as they are in themſelves lawfull and modeſt, ſo he will uſe them according to the worthineſſe of his owne and their vertues. Now for as much as theſe ſports are many and divers, I thinke it not amiſſe to begin and give that recreation precedency of place, which in mine opinion (how ever it may be eſteemed partiall) doth many degrees go before, and precede all other, as being moſt royall for the ſtatelineſſe thereof, moſt artificiall for the wiſdome & cunning therof, and moſt manly and warlike for the uſe and indurance thereof. And this I hold to be the hunting of wild Beaſts in generall: of which, as the Chaſes are many, ſo will I ſpeake of them particularly in their proper places.

The diverſity of Hounds.

The praiſe of hunting.

But before I proceed any further, I will tell you what *Hunting* is, and from the true definition thereof, make your way more eaſie and plaine into the hidden Art

What Hunting is.

of the same. *Hunting* is then a curious search or conquest of one beast over another, pursued by a naturall instinct of enmity, and accomplished by the diversities and distinction of smels onely, wherein *Nature* equally dividing her cunning, giveth both to the offender, and offended, strange knowledge both of offence & safety. In this Recreation is to be seene, the wonderfull power of God in his Creatures, and how farre rage and policy can prevaile against innocency & wisdome: But to proceed to my maine purpose, you shall understand, that as the Chases are many which we daily hunt, as that of the *Stag*, the *Bucke*, the *Roe*, the *Hare*, the *Foxe*, the *Badger*, the *Otter*, the *Boare*, the *Goat*, and such like, so the pursuers or conquerours of these Chases (speaking of *hunting* only) are but one kind of Creatures, namely, *Hounds*.

The diversity of Chase.

Now of these *hounds* there are divers kinds, as the *slow-hound*, which is a large great Dog, tall, and heavie, and are bred for the most part in the West Countries of this Kingdome, as also in *Chesshire*, and *Lancashire*, and most wood-land, and mountainous Countries: then the middle siz'd Dog, which is more fit for the Chase, being of a more nimble composure, and are bred in *Worster-shire*, *Bedford shire*, and many other well mix'd soiles, where the Champaigne, and covert are of equall largeness, then the light, nimble, swift slender Dog, which is bred in the North parts of this Kingdome, as *Yorke shire*, *Cumberland*, *Northumberland*, and many other plaine champaigne Countries: and lastly, the little *Beagle*, which may be carried in a mans glove, and are bred in many Countries for delight only, being of curious scents, and passing cunning in their hunting; for the most part tiring, (but seldome killing) the prey, except at some strange advantage.

The diversity of Hounds.

These *Hounds* are of divers colours, and according to their

their colours, so we elect them for the Chase: as thus for example. The white *bowld*, or the white with blacke spots, or the white with some few liver spots are the most principall best to compose your Kennell of, and will indeed hunt any Chase exceeding well, especially the *Hare*, *Stag*, *Bucke*, *Roe*, or *Otter*, for they will well endure both woods and waters: yet if you demand which is the best, and most beautifull of all colours for the generall Kennell, then I answer, the white with the blacke eares, and blacke spot at the setting on of the taile, and are ever found both of good sense, and good condition. The blacke hound, the blacke tann'd, or he that is all liver-hew'd, or the milke-white, which is the true *Talbot*, are best for the string or lyam, for they doe delight most in blood, and have a naturall inclination to hunt dry-foot, and of these the largest are ever best, and most comely. The grizel'd which are ever most commonly shag-hair'd, or any other colour, whether it be mix'd, or unmix'd, so it be shag-hair'd, are the best verminers, and therefore are chosen to hunt the *Foxe*, *Badger*, or any other hot sents: they are also exceeding good and cunning finders: and therefore of *Housewives* not thought amisse to have one or a couple in every Kennell.

For the shape of your *Hound*, it must be according to the climate where he is bred, and according to the naturall composition of his body, as thus; if you would choose a large heavie, slow, true *Talbot*-like hound, you must choose him which hath a round, big, thicke head, with a short nose, upriſing, & large open nostrels, which shews that he is of a good & quick sent, his eares exceeding large, thin, and down-hanging much lower then his chaps, and the flewes of his upper lips, almost two inches lower then his nether chaps, which shews a merry deep

The shape and proportion of Hounds.

mouth, and a loud ringer, his backe ſtrong and ſtreight, yet rather riſing, then inwardly yeelding, which ſhewes much toughneſſe and indurance, his fillets would be thicke, and great, which approve a quicke gathering up of his legs without paine, his huckle bones round, and hidden, which ſhewes he will not tyre, his thighs round, and his hams ſtreight, which ſhewes ſwiftneſſe, his taile long, and rush growne, that is, big at the ſetting on, and ſmall downward, which ſhewes a perfect ſtrong Chine, and a good wind, the haire under his belly hard & ſtiffe, which ſhewes willingneſſe and ability to endure labour in all weathers, and in all places, his legs large, and leane, which ſhewes nimbleneſſe in leaping, or climbing, his foot round, high knuckled, and well claw'd, with a dry hard ſoale, which ſhewes he will never ſurbait, and the generall compoſure of his body, ſo juſt, and even, that no levell may diſtinguiſh whether his hinder or fore-part be the higher; all which ſhew him of much ability, and that in his labour hee will ſeldome find any annoyance: but if you will chooſe a ſwift light *hound*, then muſt his head be more ſlender, and his noſe more long, his ears and flews more ſhallow, his back broad, his belly gaunt, his taile ſmall, his joynts long, his foot round, and his generall compoſure much more ſlender, and *Gray-hound*-like: and thus in the generality for the moſt part, and all your *Yorkſhire hounds*, whoſe vertues I can praiſe no further then for ſcent and ſwiftneſſe, for to ſpeake of their mouths, they have only a little ſharpe ſweetneſſe like a jig, but no depth or ground like more ſolemne muſicke.

The compoſition of kennells.

Now to ſpeak of the compoſition of kennels, though there is a moſt certaine knowne better-hood, yet it is to men like beauty, each allowing beſt of that which agrees with his owne affection: therefore when you in-

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tend to ſet up a kennell of *Hounds*, examine your fancy what be the beſt pleaſures you take in *hounds*; whether it be cunning in *hunting*, ſweetneſſe, loudneſſe, or deepneſſe of cry, whether it be for the training of your horſe, or elſe but meerly for the exerciſe of your owne body, being otherwiſe ſubject to groſſeneſſe and infirmity, if it be for cunning *hunting*, you ſhall breed your Dogs from the ſloweſt and largeſt of the Northern *hounds*, and the ſwifteſt and ſlendereſt of the Weſt country *hounds*, being both male and female approved to be ſtaunch, faire, and even running, of perfect fine ſcent, and not given to lie off, or looke for advantages. The ſe *hounds* will neither be ſo exceeding ſlow, that you ſhall waſte many daies without ſome fruit of your labour, nor ſo unnimble, that you ſhall need men to help them over every hedge, as I have many times ſeene to my much wonder, but having both ſtrength and nimbleneſſe, will hold you in continuall delight and exerciſe: for theſe middle ſized dogs are neither ſo ſwift, that they will farre outrun the ſcent, and ſo fetch many tedious rings to recover it, nor ſo ſlow, that for want of ſpeed they will loſe the ſcent, and let it grow cold by their owne lazineſſe; but being ever and anon upon it, bring the Chaſe to ſuch a narrow exigent, that the poore beaſt ſhall be forc'd to try all the skil, nature or ſtrength hath lent it to preſerve life: & the *hounds* on the other ſide all their paines, and the *Hunts-mans* cunning, to undoe the intricate doubles, skips, ſquats and windings with which they ſhall be perplexed, and in this mediocrity of *hunting*, ſhall your eye (if the covert be not too extreme thicke) take a perfect view of all the art and cunning in every paſſage, ſo that I conclude the middle ſized *hound*, of good ſtrength, ſound mouth, and reaſonable ſpeed, which will make a horſe

The middle ſiz'd dog for cunning.

gallop fast, and not runne, is the best for the true Art, and use of *hunting*.

For sweetnesse of cry.

If you would have your Kennell for sweetnesse of cry, then you must compound it of some large Dogges, that have deepe solemne mouthes, and are swift in spending, which must, as it were, beare the base in the consort, then a double number of roaring, and loud ringing mouthes which must beare the counter tenor, then some hollow plaine sweet mouthes, which must beare the meane or middle part: and so with these three parts of musicke you shall make your cry perfect: and herein you shall observe that these *hounds* thus mix'd, doe run just and even together, and not hang off loose one from another, which is the vildest sight that may be, and you shall understand that this composition is best to be made of the swiftest and largest deepe mouth'd dog, the slowest middle siz'd dogge, and the shortest legg'd slender dog, amongst these you cast in a couple or two of small singing Beagles, which as small trebles may warble amongst them: the cry will be a great deale the more sweet.

For loudnesse of cry.

If you would have your Kennell for loudnesse of mouth, you shall not then choose the hollow deepe mouth, but the loud clanging mouth, which spendeth freely, and sharply, and as it were, redoubleth in the utterance: and if you mix with them the mouth that roareth, and the mouth that whineth, the cry will be both the louder, and smarter; and these *hounds* are for the most part of the middle size, neither extreme tall, nor extreme deepe flewed, such as for the most part your *Shrop-shire*, and pure *Worster-shire* dogs are, and the more equally you compound these mouthes, having as many *Roarers*, as *Spenders*, and as many *whinors*, as of either, of

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the other, the louder and pleasanter your cry will be, especially if it be in sounding tall woods, or under the eccho of Rocks.

If you would have your Kennell for depth of mouth, then you shall compound it of the largest dogges, which have the greatest mouthes, and deepest flews, such as your West Country, *Chesshire* and *Lancashire* dogges are, and to five or sixe couple of base mouthes, you shall not adde above two couple of Counter-tenors, as many Meanes, and not above one couple of Roarers, which being heard but now and then, as at the opening or hitting of a sent, will give much sweetnesse to the solemnes, and gravenesse of the cry, and the musicke thereof, will be much more delightfull to the eares of every beholder. For deepnesse of cry.

If you would have your Kennell for the trayning of your Horse onely, labouring thereby to bring him to the full perfection of speede, truth, and roughnesse, then you shall compound your Kennell of the lightest, nimblest and swiftest dogs, such as for the most part all your Northerne *hounds* are, which running swiftly away with the Chase, will draw your Horse up to that extraordinary speed, that he will forget all base or loitering, and acquainting himselfe daily with the violence of such exercise, being so familiar therewith, that in the end it will be lesse troublesome to him then a slow gallop, and hence it was, and is, that the North parts are so famous for the truth and swiftnesse of their Horses above all other countries in this Kingdome: for it is most certaine that their horses are not better bred there, then in other places, but their exercise is much stronger, and violent, through the naturall swiftnesse of their *hounds*, insomuch that unlesse a horse either out of nature or education, be For training of Horses.

brought

brought to a more then ordinary ſpeed, it is impoſſible that his Maſter ſhould either ſee ſport, or keepe company with his companions.

A good caveat for gentlemen.

Therefore I would have all young Gentlemen, which are addicted to the delight of *hunting* or Running horſes, by all meanes to traine them up after the ſwifteſt *hounds*, for it is the greateſt deceit and cozenage a man can beſtow upon himſelfe to doe the contrary, as I have ſeene many times in mine owne experience, when a Gentleman, who hath ſuppoſed his *hounds* to be ſwift, which indeed were but of a middle ſpeed, and hath ſeene his Horſe follow them all day luſtily and ſtrongly, in every Chaſe able to command the formoſt *hound* at his pleaſure, he hath immediately in his owne judgement concluded his horſe ſwift and matchable with the beſt, and from that opinion engaged him againſt a knowne ſwift horſe for great ſummes of money, then when the day of triall hath been come, the horſe which had been uſed after ſlow Dogs, comming to follow thoſe that were indeed ſwift, have been drawne ſo farre beyond the uſuall manner of former exerciſe, that hee hath given over the Chaſe before the day hath beene halfe ſpent.

This caveat I give for all mens inſtructions, becauſe I have ſeene the loſſe which hath growne thereby: And now to returne to my purpoſe; your Kennell thus compoſed of the ſwifteſt *hounds*, you ſhall as nigh as you can ſort their mouthes into three equall parts of muſicke, that is to ſay, *Baſe*, *Counter-tenor*, and *Meane*; the *Baſe* are thoſe mouthes which are moſt deepe and ſolemne, and are ſpent out plaine and freely, without redoubling: the *Countertenor* are thoſe which are moſt loud and ringing, whoſe ſharpe ſounds paſſe ſo ſwift, that they ſeeme to doole and make diviſion; and the *Meane* are thoſe which

which are ſoft and ſweet mouthes, that though plaine, and a little hollow, yet are ſpent ſmooth and freely, yet ſo diſtinctly, that a man may count the notes as they open. Of theſe three ſorts of mouthes if your kennell be (as neere as you can) equally compound, you ſhall finde it moſt perfect and delectable: for though they have not the thunder and loudneſſe of the great *Dogs*, which may be compared to the high wind Inſtruments, yet they will have the tunable ſweetneſſe of the beſt compounded conſorts, and ſure a man may find as much Art and delight in a Lute, as in an Organ. But here methinkes, a too tender lover of a Horſe ſtands at my elbow, and pulls me by the eare with this Objection, that to traine Horſes after *Dogs* of this exceeding ſwiftneſſe, will be a labour of that violence which a young Horſe will hardly endure: For, firſt it will draw him ſo ſuddenly from his wind, that it will breed ſtopping in his body, and choaking up the paſſages of his breath, hazard the breaking of his Lungs, or the rimme of his belly, as hath beene many times ſeene in Horſes of great mettall: Next, the Horſe being young, and unacquainted with exerciſe, it will breed in him a wearineſſe and loathing of his labour, and nothing is well done, that is not done with delight: Laſtly, the Horſe being foule of body, and unpurged, it may melt his greaſe too ſoone, ſtraine his ſinewes and tender griſtles too much, and breed many diſeaſes, foule, and incurable, of which onely too violent labour is the ground-worke.

Objections againſt ſwift Hounds.

To this objection I thus anſwer, that albeit the labour be for the time moſt violent, yet it is not of ſo long continuance as that which is more ſlow, and to run twelve ſcore ſwiftly is not ſo painfull, as to walke twenty miles: for you muſt underſtand that theſe ſwift *hounds* out of their

The anſwer.

their mettall and swiftnesse doe soone over-shot and run beyond the sent, and then retiring backe upon it againe, give the Horse time to ease himselfe, and take his breath, whereas the slower *Dogs* carrying the sent ever before them, keepe your Horse to a continuall labour, which is more painfull, and makes him a rough galloping Lackey, but not a most swift running Gentleman, besides the many faults, casting about of the swifter, adde such a comfort unto the horse, who perceiveth the strength of his Labour to have no ease till hee come to those Faults, that hee will out of the willingnesse of his owne nature, double his courage to pursue them most swiftly, seeing his ease is ever the greater, by how much he keepeth ever nearer to the *Hounds*, for the danger of bursting, melting his grease, and other infirmities, the discretion of the *Rider*, and skill of the Huntsman, must prevent: of whose Offices I have written largely in former Chapters, in the Booke called *Cheape and Good*, for be assured, those dangers may happen as well unto the slower *Dogs*, as the swiftest.

Correction of swift Hounds hastes.

But to my purpose, since *Hounds* are the subject of my discourse: You shall understand, that these swift *Hounds* are, as is before said, out of their haste, nimblenesse, and mettall, more subject to make default then other *Hounds*, yet full as curious and good of sent as any, both, as you shall perceive by the quick knowledge and apprehension of their owne errors, casting about of the swifter, and recovering the sent, and so going away with it, before any *Huntsman* can come in to helpe them: and I would wish every Gentleman like *Husband-man*, in the composition of this *Kennell*, to have some staunch *Dogs* amongst them, which running more soberly, yet close with them, may sit upon the sent, when they over-shot

shut it, and so call them backe, and give them their losse without more trouble. Also I would have both in this *kennell*, and every other, a couple at least of good finders, being *dogge-mouth* of mouth, and not able to open except they lie upon a certaine traile: for these will be great furtherers of your sport, and make your younger *dogs* a great deale more mute and painfull.

You shall also in this, and all other *kennels*, have at least a couple of good high-way *dogs*, that is to say, *Hounds* of such cunning and perfect scent, that they will hunt as well upon a dry hard high-way, (where you cannot pricke forth the passage of your Chase) as upon the freshest mould, or will hunt as truly through flockes of sheepe, or heards of beasts, as upon the grounds where few or no beasts come; these are called *Hounds* for the high-way, or guides of the *kennell*, and are exceeding necessary, and fit for all mens pleasure: for they take from the *Huntsman*, both sense of paine and anger. Of the high-way Hounds.

Lastly, if you would compose a *kennell* onely for the exercise of your owne body, or maintenance of health, you shall first draw into your consideration your owne ability, as whether you will make your exercise on foot, or horse-backe. If your delight and ability draw you to hunt on foor, then I would wish you to compose your *kennell* of the biggest and flowest *dogges* you can get, respecting only cunning *hunting*, and depth of mouth, and this *kennell* you shall make so *staunch*, and obedient to your command, that when they are upon the hottest scent, or in the earnestnesse of the chase, to step before them, and cast your hunting pole but before their eyes, they shall suddenly stop, and hunt after you in full cry, with no more speed then it shal please you to lead them, and then when you please, to let them goe before you The Kennell for exercise of body.

againe, to passe away with the sent roundly and without stay.

This manner of *hunting* will carry with it a two-fold delight, the one of enjoying the musicke of their voices, the other the cunning of their noses: each striving to go before, yet none presuming without leave to go before: by this rule you shall bring the hottest sent, and the coldest scent to one manner of swiftnesse, and so neither offend your body with too much, nor too little exercise. But if you will take your exercise on horseback, because infirmity will not let you runne on foot, then you shall compose your *kennell* of the slowest of middle sized *hounds*, who shall have both good mouthes, and loud, and noses of most ready sent, and perfect hunting: and if you bring these *hounds* also to the former obedience of stopping, and hunting after you, it will be exceeding good and delightfull, both to your eyes and eares, and so bring your *hounds* to temperance and coolenesse in hunting, that taking the frensie and greedinesse of haste from their minds, they will make your sport much longer, and lesse weary than else it would be.

But some will answer me, that albeit they have infirmities, which detaines them from running a foot, or labouring like Lackies or Drudges, yet they can indure ordinary and orderly walking, such as shall be fit for any moderate exercise; and therefore they would hunt on foot: yet the great *hound* they like not for two causes, first his chargeable and troublesome keeping, and next his noisomnesse and pestering company in a house that is but streight, and of no more than necessary use: To these I answer, that it is good for them to keepe the little small Mitten-*Beagle*, which may be companions for a Ladies Kittle, and in the field will hunt as cunningly as

any

any Hound whatsoever, only their musicke is very small, like reeds, and their pace like their body, onely for exercise, and not for slaughter.

Having thus composed your *Kennell* of *Hounds*, according to the humour of your owne fancy and delight, it shall be meet then, that you frame a *Kennell* or house to keepe them in, wherein they may lie dry, and have their food and other necessaries about them, without troubling your dwelling house, or giving offence by their greedinesse or ravening. Of the hounds Kennell.

This *Kennell* for *Hounds* would be placed a pretty distance from your dwelling-house, neer some river, pond, spring, or other fresh water: it would also stand against the side of some banke or hill, which looking directly against the East, the morning Sunne might rise upon the same, and not lose the sight of it till at least two or three houres after noone, which will be a great refreshing and comfort unto the *Hounds*, which love naturally to stretch, trim, and picke themselves in the Sun: against the side of this hill, would be cut or digged divers large and broad seats one above another, containing at least five foot in bredth, and two foot and a halfe in height, which seats would be either boorded, or watled with stakes and small wands on the sides to hold up the earth from falling, and also close boorded aloft, whereon you shall lay fresh and sweete straw for your Dogs to lie upon: the number of these seats would be according to the number of your *Hounds*, and the quality of the earth in largenesse: over these seats would be made a close and well tyled shed, open no way but upon the East, and in such manner, that it may defend either all or most part of the seats from raine, wind, or any tempest: from the lowest part of these seats forward, you shall make a large The situation of the Kennell.

greene

greene court, being either walled, paled, or otherwise very strongly fenced about, in which your Hounds may play, sport, scummer, and doe other offices of nature, fit for their health: also in this court, in the most convenient corner of the same, you shall build a little house or lodge, with a spacious and large wide Chimney in the same, wherein in the Winter-time you shall allow fire, before which (your Dogs return'd from hunting) may stretch, picke, dry and trim themselves, which is an exceeding comfort unto them, and wil make them more strong and able to indure their labours, and also keepe them wonderfully well both from the mangy, and other filthy diseases which proceed from colds taken after violent heating. In this Chimney your *Hunts-man* shall have a large Cauldron, and other necessaries, as Ladels, Scummers, and such like; for preparing and making ready of all such warme meate as you shall allow to them, which if it be sweete, is called Mang, if otherwise, Carrion, or Garbage: above this lower roome shall be your *Hunts-mans* lodging, wherein also he shall keepe his couples, liams, collars, trashes, Boxes, and pots, with salves and ointments, for the cure of such infirmities as shall happen amongst them, and all other necessaries any way belonging unto his Office. In another part of the court, and neerest unto the house, you shall place troughs and tubs, some for their meate, and some for sweete Water, all which must be kept very neate and cleane; and Water must by no meanes at any time be wanting, yet oft renewed, and the vessels scoured for sweetnesse sake: for the *Hunts-man* ought to hold it for a Rule, that nothing bringeth more health then cleannesse: Into this house you shall by no meanes bring at any time Carrion, because it will make the place unsavoury, and unfit for any

man

man of worth to looke into, and sure it ought to be a place fit for every worthy eye.

Now your Kennell being thus orderly, and well prepared, it is meete that I shew you what meat is meetest for *Hounds*; how it shall be prepared, and how they shall be fed: first, then intending that I onely speake of *hunting-hounds*, that is to say, *Hounds* which are in continuall use and action, you shall understand that in their daies of rest, the strongest and lustiest meat you can give them, both for raising them up when they are low hunted, or for keeping them in strength when they have lust within them: is either horse-flesh newly slaine, and warme at the feeding, the intralls and garbage of Beasts (lungs onely excepted) or the heads, plucks, and bowels of sheepe, or generally any carrion which is not old, nor cold after the death. To feed them for perfectnesse of *hunting*, and to keepe their scents fine, pure, and cleane, or to purge the stench of the carrion out of their noses, that thereby they may undergoe their worke with more cunning, the best food is to give them Mang, made either of ground Oats, Barley-meale, Bran, or Mil-dust well scalded and boiled together, or any of these two mix'd together, and scalded with Beefe-broth, or any other broth, in which flesh hath beene sodden, so as it be not too extreme salt. Of feeding of Hounds.

Now for the use and manner of feeding with these meats (as I said before) horse-flesh, garbage, and other carrion, is onely to breed strength, and lust in a *Hound*, and is to be given onely when a *Hound* resteth; because the strength and smell of the same will so cloy and stop the *Hounds* nostrels, that he can hardly distinguish or undertake any finer scent, and so breed much hindrance to his *hunting*: Therefore you ought ever to feed your

Hounds at leaſt the day before you hunt, if not more, with ſweet meate.

Now for the manner of feeding with horſe-fleſh, or any other carrion, you ſhall be ſure to have it a good diſtance from your Kennell, and ſo as it may be no annoyance either to your owne neighbours or travellers in the high-way; then firſt before your *Hounds* touch it, with your knife, take off the skin, then open the body, take out the bowels and rip them, then if the body be more then either your *Hounds* can, or muſt eate, take off a Legge, or a ſhoulder, or ſuch part as you thinke fitteſt to preſerve, and lay it by, then let your *Hounds* feed on the reſt, till their bodies be well filled; which done, draw your *Hounds* home, and upon ſome ſtang for the purpoſe, carry with you that which you ſaved; which aſſoone as you have ſhut up your *Hounds*, you ſhall beare to the River or freſh Water, and lay it in the ſame untill you have occaſion to uſe it: for it will keepe it ſweet a weeke or more at leaſt, if need require.

Now, for feeding with Mang, or ſweet meat, it would ever be done the day before you hunt, and as it is to be prepared in the Kennell, ſo you ſhall let them eate it in troughs within the Kenell, for that will make them take delight in the place, and this Mang muſt ever be given warme, and made ſomewhat thicke, and if you whiten it over with Milke, or Butter-milke, or if you caſt into it chippings, cruſts of bread, bones, broken meat, or ſcrapings of trenchers, it will be better, and they will eate it with more greedineſſe.

Meat for ſicke and weake Hounds.

If you have *Hounds* that are poore, weake, or ſickly, which you would ſuddenly recover and bring unto hunting: Then if you take ſheepes heads, wooll and all, and hacke, hew, and bruiſe them in many pieces; then boile

them with oatemeale, & penny royal, and make strong pottage of the same, and give altogether warme to your sicke *hounds*, and it wil suddenly recover them, if once in a Weeke also you give them a ful meale of warme horse flesh, it is very soveraigne.

Now for the best times of feeding, it is held amongst all our best experienc'd *Huntsmen*, to be in the daies of rest earely in the morning before Sunne rise, and in the evening at Sunne set: But in the dayes of *Hunting*, you shal let them goe fasting out of the *Kennel*, and feede them as soone as you come home to the *Kennel*, or before in your way homeward, if you have any horse-flesh, or other Carrion readily provided: otherwise with such meate as you have, so it wil fill their bellies, for a *hound* by no meanes would be pinched of his belly after his labour, and therefore be sure if your meat be course to fil his guts wel; if it be sweet, strong, and comfortable, then lesse wil serve him.

Best houres of feeding.

Ordering of Hounds after hunting.

And here I thinke it meet to speake of a convenient proportion of Food, for the maintenance of a *Kennel* of good *Hounds*: Wherein you shal understand that three Bushels of Oates, or Barley meale, with halfe so much branne or Mil-dust, is a fit weekely proportion to keep nine or ten couple of *hounds*, with a little help of horse-flesh, if the *Huntsman* be any good husband, and painful as he ought to be in finding out Horses, scraps, crusts and bones, which almost abound in every mans house of any worth or reckoning: & by imploying that which is saved in the daies of labour to increase the proportion when need shal require: Many much large quantities I have knowne, and doe know allowed at this day in divers places: but I have held it abuse to the Maister, and either a covetousnesse or negligence in the *Huntsman*,

A proportion of meate.

by whose unskilfull greedinesse, I have seen many tyred out of their pleasures: Therefore be assured this quantity already named will fully suffice; nay, even to please a most wanton curiosity, and surely much lesse if a painfull *Hunts-man* have the government: for I shall never see fairer or better kept *Hounds*, then I have seen maintained with halfe this proportion; but as I would not be too lavish in my directions, so I would much lesse be too strait handed; hoping that every man of honesty and trust, will order his affaires with discretion.

Ordering of Hounds after hunting.

Now for the ordering of your *Hounds* after they have done hunting, you shall, if you feed them abroad, or otherwise, as soone as you bring them into the *Kennell*, wash all their feet either with a little warme Butter and Beere, Beefe-broth, or water wherein *Mallowes* and *Nettles* have beene boiled soft and tender, you shall picke every cley, and search the foot for thornes, stubs, or any other prickings; you shall looke that the straw whereon they lie, be sweet and fresh; and if it be in the strength of Winter, after they are fed, you shall suffer them for an houre or two, to beake and stretch themselves before the fire, ere they goe to lie downe for all night, and by no meanes trouble them as long as they licke, picke, or trim themselves; but that once finished, you shall force them from the fire, and make them find out their lodgings.

CHAP. II.

The curing of all manner of infirmities in Hounds.

NExt unto these Precepts, it is meet you be skilfull in curing of all the diseases in *hounds*, of which as there be many, so here you shall partake many rules for the same, both perfect, and excellently approved by

experience.

experience. And first of all in as much as it is an infirmity of all other most general, natural, & as it were not to be divided from *dogs*: I will beginne with the killing of fleas and lice, & such like vermine in *Hounds*, which proceeds from filthy keeping, rotten and moist lodging, & want of shifting of straw, when it grows short by much lying on: if then your *Hound* be troubled with fleas or lice you shal take Rue or Hearbe of grace foure or five hand full, and boyle it in a gallon of running water till a pottle be full consumed, then straine it through a course cloth, and put to it two ounces of strong Staveſaker beaten to powder, and being warme, bath your *Hound* therwith, and it will destroy them. Of killing fleas and lice.

If your *Hound* be troubled with wormes, which is very general amongst them, especially the yong *Hounds*, then you shall take a pint of new milke & mixe it with a good quantity of Brimstone, and so give it luke-warme unto the *Hound*, and it will not only scower away al manner of wormes, but all other filthinesse bred in the body of a *Hound*, either by labour or surfet. To kil worms.

If your *Dogge* have beene bitten by either Snake, Adder, or any other venemous thing, take the hearbe Celandine and beat it in a morter, with Turpentine and yellow waxe till it come to a salve, and then apply it to the sore and it will heale it: Also if you boile the hearbe in milke, and give the *Dogge* it to drinke, it will expell all inward poyson. Biting with venemous beasts.

If your *Hound* have been bitten with another maddie *Dog*, which is a disease exceeding dangerous and mortall, you shal presently wash the place so bitten with Sea water, or a very strong brine, and it will save and cure him, or else take the hearbe called *Yarrow* and beate a handfull thereof in a morter, with a handfull of whence Biting with a mad dog.

till it come to a ſalve, & then lay it to the ſore, and it wil heale it, and if you poure into his ſtomacke as much *Mithridate* as a haſell nut, diſſolved in ſweet wine, and it will wonderfully ſcour and preſerve him from the infection of the inward poiſon.

Of a madde dogge and the ſignes.

The infirmity of madnes it ſelfe in *Dogs*, is common and oft to be ſeene, and though it be altogether incurable, yet if a man be experienced in the firſt ſignes or characters of madneſſe, he may prevent divers miſchiefes and moſt mortall evills, which inſue for want of ſuch knowledge, and albe he loſe one *Dogge*, yet hee may ſave al the reſt: the firſt ſignes therefore to know when a *Dogge* is entring into this diſeaſe, is a melancholy ſeparating himſelfe from other *Dogges*, and walking up and downe alone, oft caſting up his head into the wind, and looking upward, his tail at the ſetting on riſing upward and the reſt hanging downe, his mouth wil foame and be full of flaver or white froth, as he runneth up and downe he wil haſtily ſnatch at every thing that he meeteth with, yet, but onely give one ſnatch and away, his eies will be red and more fiery then other *Dogges*, and his breath will be ſtrong and of a filthy ſavour, any of theſe ſignes when you ſhall perceive, you ſhall preſently ſeparate him from other *Dogges* and kill him, for unto the diſeaſe is no cure.

Of gaulling.

If your *Hound* be gauld, or his skinne torne in any part, you ſhall onely take *May* butter, yellow wax, and a little unſleakt lime beaten together like a ſalve, and therewith anoint the ſore place, and it is a preſent cure.

Of a tetter.

If your *Hound* (as they are much incident thereunto) have upon him any tetter or dry ſcab, you ſhall take of black inke, the iuice of mints, and vinegar of each alike quantity, and mixe them together with the powder of

brimſtone

brimstone till it be thicke like a salve, and then annoint the Tetter therewith till it bleed, and it will soone kill and cure it.

If your *Hounds* be troubled with the itch, you shall take nerve-oile, and beat it with quick-silver, till the quicksilver be kill'd, and the salve turned to a pale yellow colour: then with the same annoint the *Dog* before a good fire, and chafe it well in against the haire, and it will cure him. For the itch.

But if your *Hound* be troubled with the scab or mangie, then you shall take a penny worth or two of the best gunpowder you can buy, and mixing it with very strong Wine-vinegar, make it thicke like puddle: then with the same annoint all the places where hee scratcheth till they bleed, and it will kill the mangie; there be others which use to cast their *Dogs* into the Lime-pits of Tanners or Glovers, and force them to swim up and downe the same, and it will kill the mangie, yet there must be a great care taken in putting the *Dogs* in, least doing it rashly, the Lime-water get into their eyes, which is very dangerous, and will hazard their burning out. Of the mangie or scab.

If your *Hound* shall receive any wound, whether it be with sharp or blunt weapon, or any accident whatsoever, although his owne tongue be a soveraine salve, yet if it be in any part, where either he can or cannot licke it; the best cure is to wash it with warme Butter and Vinegar mix'd together, and then anoint it with a little Venice Turpentine; but if it be a hollow wound, and must of force be tainted, then you shall either tent it with sweet Butter & Oatmeale, wrought together to a salve, or with yellow Waxe and Deere-suet; there be some that will use for a taint a small candles end, and that is very good, if the Tallow be sweet; but if it be putrified, Of wounds.

then it will poyſon and corrupt the wounde.

Of a canker in the eare. If your *hound* be troubled with a canker in his eares, which is a griefe much incident unto them, you ſhal firſt taint the hole if you find any, with dry corke, and after waſh the ſore with venegar and Allome, mixt together till the fleſh looke raw, and after dry it with burnt Allome onely.

Of ſurbaiting. If your *Hound* be ſurbaited, you ſhall waſh his feet with butter and beare boiled together, and then bind to the ſoles of his feet young red nettles chopt very ſmall, or beaten in a morter til they come to a ſalve.

Of Bruiſes. For any manner of bruiſe which ſhal happen to your Hound, either by ruſh, ſpurne, ſtroke or otherwiſe, if it appeare and ſwell outwardly, you ſhall bath the place with cheeke weed, and groundſal boiled in ſtrong Ale dregs till they be ſoft, and will allay the ſwelling: but if the bruiſe be inward, then you ſhall with a horne give the *dogge* a pint of new milke, and a quarter of an ounce of *Sperma Ceti* well mixt together, or for want of *Sperma Ceti*, double ſo much ſtone pitch beaten to fine powder.

For the ſtone. If your *Hound* be troubled with the ſtone or other filthy matter, which maketh him that he cannot piſſe, you ſhal take the ſeeds of the hearbe *Granum ſolis*, or *Ground*, and bruſing them, give them to the *Hound* in halfe a pint of white wine.

For coſtivenes If your *Hound* (as it is very naturall to *dogges*) be ſo coſtive that he can by no meanes ſkummer, you ſhall firſt take a peece of a tallow candle, about three fingers in length, and thruſt it a good way into the tuell of the *Hound*, and then hold downe his tayle hard a quarter of an houre or more, and then give it liberty, and when he hath emptied his belly, you ſhall give him to drinke five

or five spoonefull of Saller oile, and will cleanse him sufficiently.

If your *Hound* be troubled with any disease in his ears whether it be a continuall rouning, or any other impostumation, you shall take verdiuyce and chervile water, and mix them together, and each morning and evening drop a spoonefull or two thereof into the *dogges* eares, and you shall find it a present remedie. For any disease in the eares.

If your *dogge* at any time be troubled with sore eies, of what nature or quallity soever the griefe be, you shal take a leafe or two of ground ivie, and chewing it well in your mouth, and sucking out the juce spit the same into the *dogges* eies morning and evening, and it will cure them; This ground Iuie is a little round rough fagged leafe; and growes in the bottome of hedges. For sore eies.

If your Hound shall happen to break a legge or any other bone, you shall first with your hand place it in his true place, and see that it stand straight and even, then bath it in the warm oile of swallows, or the oile of mandrage apples and wrappe it about two or three times, in a seare cloth made of yellow wax and Deare suet, which done splent it with flat splents of wood, and so role it with a strong roller, and let it so rest nine dayes at least, before you unsplent it, but remove not the seare cloth for fifteene dayes, and you shall see the bone will knit strongly and firmely. For broken bones.

Chap. III.

Of the breeding of all manner of Hounds.

HAving thus passed over the election of *hounds*, composition of *Kennels*, dieting & curing of al sorts of diseases, I hold it meetest now to folow with some short precepts the breeding of *Hounds*, because it is exceeding;

ding hard, for any man to have a *kennel* of *hounds* from gift or purchace without much imperfection: for though one Friend give you a good *hound*, another sell you a good *hound*, yet how their goodnesses wil agree when they run together, is very disputable; and truly unlesse your *hounds* have one speed, one runableneſſe of voyce and one manner of *hunting*, your pastime will be much disorderly, which there is no way to get so easily and truly, as by the breeding of your *hounds*, for one and the same birth produceth one and the same qualities, therefore having a *hound* & a bratch of that size, voyce, speed, scent, proportion, and general goodnesse which agreeth best with your owne nature and condition, you shal put them together to ingender and breed, either in *January*, *February*, or *March*, according as they shall grow proud, for those are the three most principal moneths in the yeare, for *hound*, *bitches*, or *bratches*, to be limed in: not but that they may conceive and bring foorth as good *Whelpes* in other moneths; but because there will be much losse of time in the entering of them, for if a *bratch* be limed in *January*, she will Whelpe her Liter in *March*, and so they will be ready to enter in the first beginning of hunting time: if she be Limed in *February* shee will whelpe in *April*, and if shee be Limed in *March*, shee will whelpe in *May* following, and in all these three Moneths there is not a dayes losse, for the entring of the whelpes, which is an especiall care to be observed of Huntsmen.

Hounds must sute one another.

The moneths to breed in.

CHAP. I.

Vnder which signes to breed

Also if you shal let your *hounds* ingender in the three moneths aforesayd, you shall not forget to observe as neere as you can, that when you put the dog and bitch first together, the Moone be either in the signe *Aquarius* or *Gemini*; for it is held amongst the best Huntsmen of

of this Land, that the whelpes which are ingendred under those two signes, will never runne mad, and for the most part, the Litter will have at least double so many *dogge whelpes*, as *bitch whelpes*. When your *bratch* is neere whelping, or hath whelped; you shal separate her from other *hounds*, and have a private *kennel* for her, where shee may be alone without company of other *hounds*, and you shall duly every night see her *kennell* in the same, that shee may take acquaintance and delight therin, and when you feed her particularly, you shal feed her in that *kennel*, that taking a love thereto she may not seek out other unfit and unwholsome places to whelpe in: for where a *Bratch* first whelpeth her Litter, if they be removed, she wil not leave carrying her whelps up & down, til she have found the same place again, or some other perhaps more unfit then the former, and such carriage of whelps by the dam is very ill and dangerous: this *kennel* where your whelps shal remaine shal not be kept close, but open, that the *bratch* may have liberty to goe up and down after twenty foure houres space, which time she shall be kept very well, close and warme, that she may performe the naturall office of a damme to her whelps.

Ordering of Bratches after Whelping.

You shall not suffer your Whelpes to sucke above two moneths at the most, but then you shall Weane them, and if the house you keepe be of great receite, & many Servants, you shall let your Cook bring up your whelpes, and your dairy-maide your second best, and the rest you shall put foorth amongst your Friends, or Tenants, according unto the love you possesse in the Country.

When to weane Whelpes.

Now when your whelps are brought up, you shal not enter them into *hunting* before they be at least a yeare & halfe

When to enter Whelps.

a halfe olde, as thus, if your Whelps were whelpt in *March*, then you shall not enter them untill *September*, come twelve moneths after: and if they were whelpt in *April*, then you shall enter them in *October* come twelve moneths after: And so fourth, for the rest of the moneths.

How to enter Whelps.

Now for the manner of your entring of whelpes, you shal draw them abroad in the plesanteſt of the day, with the moſt ſtaunch and beſt hunting *hounds* you have, leaving at home all babling and flying Curres, and if you can, you shall have your *hare* ready ſet before you come, (for the *hare* is the principall chaſe you can enter whelps upon) and then putting her from her forme, and viewing perfectly which way ſhe taketh, after the ſent is a little cooled, lay on your *hounds*, and give them all the advantages you can for the *hunting* of her, as by *view*, *view*, *hallow*, or pricking her paſſage, and if they ſhall chance to kill her; you ſhall immediatly take her from the *hounds*, and not ſuffer them to breake her, for it is an evill cuſtome: but your ſelfe ſtripping away the skinne, ſhall cut her all to peeces, and give every part of her to your young whelpes, which will breed in them great courage and delight in *hunting*.

Obſervations in the entring of whelpes.

You ſhal obſerve in the entring of your yong whelps, that they hunt faire and even, without advantage, or ſeeking any way to gaine their own eaſe, as by lying off from the ſent, thwarting, or croſſing when they are behind to get even with the formoſt *hounds*: any of which when you ſhal perceive, you ſhal immediatly beat them in with your hunting-poale, and compell them to take the ſent before them: alſo if any of them be giddy headed, and out of mettle will run before the other *hounds* cleane from the ſent, in this caſe alſo you ſhal beat them

ſoundly

ſoundly backe and bring him backe to the ſcent, and force him to take it with the reſt of the *Kennell*. Alſo if any young *hound* will not ſtrike upon a default, but run babling away without the ſcent, drawing away the reſt of the *Kennell* to follow him; in this caſe alſo you ſhall ſcourge him backe, and compell him to ſtand and labour upon the default, till ſome of the elder *hounds* undertake it, then you ſhall cheriſh all, both with *horſe* and voyce into the Chaſe.

Laſtly, if you find that any of your young Whelps truſt more to his owne ſcent, then to the reſt of his fellowes, and ſo by that meanes hunteth at leaſt twenty ſcore ſometimes behind the reſt, making his defaults by his owne noſe, and not their owne leading, yet hunteth very juſt and true: In this caſe you ſhall by no meanes over-goe, or over-ride the Whelpe: but give him all comfort and encouragement you can, and let him take his owne time and leiſure, for uſe and experience will quickly make him skilfull, and the skill will ſoone carry him up amongſt his fellowes, where hee will ſoone become a principall Leader: and thus much for *Hounds*, and the compoſition of *kennells*.

CHAP. IV.

Of all the ſeverall Chaſes which Hounds are to hunt.

THere hath already (by many well experienced men) been much written of this Subject, that I know not well what to write, except I ſhould in ſome ſort repeat mother mans tale: from which I am ſo farre different (having vow'd to my ſelfe, by no meanes to meddle with any thing formerly written) that the ſtricteſt examiner whatſoever, ſhall not find me guilty of the leaſt blemiſh therein,

therein, yet since I must necessarily in this case write something, I will as briefly as I can set downe some materiall and speciall notes, and for the maine substance, if they desire a long continued circumstance (though this is sufficient for any understanding wit) referre them unto old *Tristram* Booke, translated by M^r. *Turbervile*, and such other Bookes, where they may find compleate satisfaction.

Of the Stagge and his profits.

To speake then first of the *stagge*, which is the most Princely and royall Chase of all Chases, and for whom indeed, this Art of *hunting* was first found out, and invented, hee is of all Beasts the goodliest, statelyest, and most manly, and for the use of man the fullest both of outward and inward profit, as in his flesh for the nourishment of mans body, and in his other members for helpes in physicke, as the bone in his heart, which is soveraigne for all inward faint sicknesses, for poison, the Plague and hard Travell in women: his blood excellent for all kind of Fluxes, and to make the skin white and smooth: His Pizell good for the Cholick, and bloody fluxe: His Horne a most soveraigne Cordiall against venome: his Suet good for swellings, Goute, and Humours; and his skin, which is ever a during and Gentlemanly cloathing, and of Stagges, the oldest and greatest is the best.

How to know an old Stag.

The perfect signes to know an old *stagge* by, are these; if when you take his view upon the ground, you see hee hath a large foot, a thicke heele, and a deep printing an open cleft, and a long space, then be assured he is old, also if his legge be long, and his bone thicke, it shewes age, besides, your old *stagge* doth not over-reach when your younger Deere doth, also you shall know his age by his ordure, as thus, if it be printed (as it will be

from

from *July* to *August*) or writhen round, or flat, or broad, as it will be in *June*, and there withall be grosse and fatty, then he is an old Stag: but if contrarily small & dry, then he is but a young Deere; againe, you shall know his age by the tines of the hornes, for if he have ten, twelve, or foureteen tines, he is a Deer of reasonable age, but if the beame be thicke and great, then he is an old Deere, so if he carry but some sixe or eight tines, and a small beame, then he is a young Deere, and not above three or foure yeeres old, for the red Deere is said the first yeere to have no head, the second but only daggers, and the third tines.

The cast of Heads.

Stags yeerely cast their heads in *March*, *April*, *May*, or *June*, and in no other moneths, according to the goodnesse of the soile wherein they feede, for the richest ground beareth ever the earliest Deere, and a Deere is never said to be in season, nor may hee by good rule be hunted till he have cast his head.

How to find a Deere.

The principallest quality in a *Huntsman*, is to know how and where to find a Deere, for if he be ignorant in their haunts, he may wander long, and lose much labour. Therefore hee shall know, that a red Deere naturally haunteth in *November* amongst Furs, Whins, or thicke shrubs. In *December*, amongst thicke and strong woods. In *January*, in corn-fields, of Wheat and Rie: In *February* and *March*, amongst young and thick bushes: in *April* and *May* in Coppises and Springs: In *June* & *July*, in outwoods, and Purlewes which are neerest unto greene Corne: and in *September* and *October*, after the first showers of raine, they goe to Rut.

Now when the *Huntsman* will at any time search any of these places to find his game, hee must be carefull by no meanes to goe downe but up the wind, for a Deere is of most dainty scent, and upon the least fault will fly and

leave

leave his seed: therefore hee must come charely and closely, with a quicke eare, and a ready eye.

Now for the best time to finde out your Game, is early, before Sunne rise, at which time the Deere goeth to his food: from whence you shall watch unto his Leire, and having lodged him, you may returne home, and prepare all things for the daies hunting: for be assured, except violently compelled, hee will not stirre untill Evening.

The hunting of the Stag.

Now for the manner of his hunting: you shall first cast off your finders, neere his place of lodging, and after they have hunted him about a ring or two, you shall cast in the rest of your *Hounds*, and being in full cry and maine chase, you shall give him comfort both with Horne and Voyce, then as soone as you can possibly, you shall get sight of the Deer, and take what speciall note or markes you can from him; so that as much as possible you may know him from any other Deere, then at every default, as soone as the *Hounds* are in cry againe, you shall make in to the hunted Deere and view him, and if you finde it to be a fresh Deere, you shall rate the Dogs, and bring them backe to the default, and there make them cast about againe, untill they have undertaken the first hunted Deere, then give them comfort by hollowing and Gibelts, and so continue the chase till you have either set up the Deere or slaine him, ever and anon having a watchfull eye unto change, for it is the nature of a Deere, when he is once imboft, or weary, to seeke where hee may find another Deere, and to beate him up, and lay himselfe downe in his place.

To know when a Stag is weary.

To know when a Stagge is weary, you shall see him imboft, that is, foaming and slavering about the mouth with a thicke white froth, his haire will looke black, lining

ning and foule with ſweat, and he will cappiſh oft, that is, he will ever and anon be lying downe and lurking in darke holes and corners, and for his laſt Refuge he will betake himſelfe to the ſoile: which is, he will leape (if he can) into Rivers, Ponds or other water, out of which you ſhall force him either by art or ſtrength: And thus much for the Chaſe or hunting of the Stagge.

Now for the Hunting of the Bucke: for as much as they are moſt uſually kept in Parkes, and that every Keeper, which is worthy to be a Keeper, may ſooner from his owne experience then from any Reading, get the experience of the ground hee tendeth, and ſith hee is bound both by the Lawes of *Huntſmen* and good manners to give every man contentment that is privileged to hunt in his ground: And ſith whoſoever can hunt a Stag well, cannot hunt a Bucke ill, the red Deere being ever farre more curious to hunt, then the Fallow: I will not ſpend any more time to write of it, but refer you to thoſe rules which are already rehearſed. Of the Bucke.

Touching the hunting of the *Hare*, which is every honeſt man, good mans chaſe, and which indeed is the freeſt, and readieſt, and moſt induring paſtime, and likewiſe in its owne kind, full of good profit for mans preſervation: For though the beaſt be but little, yet are the members worth injoyment, as the fleſh, which is good for all manner of Fluxes: the Braines good to make children breed their teeth with eaſe: the woole excellent to ſtench blood: the Gal ſoveraigne for ſore eyes, the blood which will kill Rhume, Wormes, and the pilling bone, which being worne, taketh away the paine of the Cramp, with many other good things beſides. Of the Hare. Of her profits.

Touching the hunting of the *Hare*, you are firſt to regard the place of hunting, as whether it be in woods, or The hunting of the Hare.

Champaigne; if in woods, you ſhall not caſt off your Dog in the thickeſt of the covert, but rather beare the bush cloſe, or ſhrubby ground neere adjoyning to the covert: for though in the woods you may ſooner find a *hare*, yet commonly you ſhall find ſuch change therewithall, that you ſhall hardly bring any forth to weſt your pleaſure, where on the contrary part, if you finde any in thoſe neighbouring grounds, ſhee will preſently fly forth into the champaigne: becauſe naturally a *Hare* will refuſe the covert; till ſhe begin to be weary, and a *Hare* being once heated, is not ſo eaſily loſt upon a freſh change; as when the ſcents are of equall cooleneſſe, if you hunt in the champaigne, you ſhall firſt beat thoſe places which are moſt likely, as where gorſe or whins grow, or in grounds that are full of rusks of ruſhes, ſhort ling, bramble buſhes, or ſuch like: or if the champaigne be more plaine and void of ſuch places, then you ſhall at the beginning of the yeere repaire to the ſhrubs, about Chriſtmas to the fallow; and in *March* to the greene Corne: for thoſe are the moſt uſuall haunts for the beſt *Hares*, and in all theſe places you ſhall regard the Forme, or *Hare-ſeat* well, and know whether it be old or new, as if the Forme be plaine and ſmooth within, the padde before it flat and worne, and the prickes ſo new and eaſie to be ſeene, that the earth appeare blacke, and as it were preſently broken, then is the Forme new, and if the *Hounds* call upon it, then may you hunt from thence, and upon the traſe recover that *Hare*: but if the Forme looke old and rough within, and the padde it ſelfe be not ſmooth nor any pricks to be diſcerned therein, then it is old, and if the *Hounds* call upon it, you ſhall rate them, for the ſcent is old, and all the labour will be loſt you ſpend upon it.

Where to find Hares.

The knowledge of the Hares forme.

The next thing you obſerve, muſt be the ſhifts and

sleights of the *Hare*, when she is wearily hunted, as her dubblings and windings, and at every default give the *Hounds* leisure enough, and compasse enough in the casting about of your rings for the unwinding of the same, then you shall observe her leaps and skips before she squat, and beat all those places very curiously which are likely to give her any harbour, and though the losse seeme never so dangerous, yet not to be discouraged, but to continue your search, because when she commeth to those hard shifts she is at the last cast, and cannot stand long before the *hounds*. Many other circumstances there are, but they are so generally knowne to almost every man that any way affecteth this pleasure, that it is needlesse to make further relation thereof; and therefore I hold this sufficient for the hunting of the *hare*.

The Hares sleights and shifts.

Now for the hunting of the *Foxe* or *Badger*, they are chases of a great deale lesse use or cunning then any of the former, because they are of much hotter scent, as being intitled stinking scents, and not sweet scents, and indeed very few *Dogs* but will hunt them with all eagernesse; therefore I will not stand much upon them, but advise you to respect well their haunts & coverts, which commonly is in woods and bushie places, and to take knowledge of their earths, and kennells, and as neere as you can, when you goe about to hunt them, to stop up their kennels, and keepe them out, that fling forth, they may be the sooner brought to their destruction; the chase is profitable & pleasant for the time, in so much as there are not so many defaults, but a continuing sport, yet not so much desired as the rest, because there is not so much art and cunning. And thus much for chases, and the generall use of all kind of hunting.

The hunting of the Foxe or Badger.

The end of hunting.

Of Hawking, &c.

Chap. V.

Of the hawking with all sorts of Hawkes, and the whole Art thereof.

IF your English Husband-man shall for his Recreation, choose the pleasure of Hawking, which is a most Princely and serious delight; he shall understand that all Hawkes are divided into two kindes: the long winged Hawke and the short: the long winged Hawkes, which are meete for our Husband-mans Recreation, are the *Faulcon-gentle*, and her *Tercell*, the *Gerfaulcon* and her *Gentle*, the *Saker*, the *Lanner*, the *Barbary Faulcon*, the *Merlin*, and the *Hobby*: and the short-winged *Hawkes*, are the *Gosshawke*, the *Tercel* of the *Gosshawke*, the *Sparrow Hawke* and the *Musket*.

Kindes of Hawkes.

The *Faulcon-gentle* which is the principle of *Hawkes*, may be made either for the field or river, and will fly either at the *Partridge* or the *Mallard*: the *Gerfaulcon* will fly at the *Herron*: the *Saker* at the *Crane* or *Bittor*, the *Lanner* will fly at the *Partridge*, *Pheasant*, or *Chough*: the *Barbary faulcon* at the *Partridge* only; the *Merlin* and the *Hobby* at the *Partridge*, *Larke*, or any small bird whatsoever: the *Gosshawke*, or *Tercel* of *Gosshawke* at the *Partridge*, *Pheasant*, or *Hare*: the *Sparrow-hawke* at the *Partridge* or *Blackbird*, and the *Musket* at the *Bush* only, and all these *Hawkes* are hardy, meeke, and loving to the man.

The flight of Hawkes.

All

All hawkes generally are manned after one manner, that is to say, by watching & keeping them from sleep, by a continuall carrying of them upon your fist, and by a most familiar stroaking and playing with them, with the Wing of a dead Foule or such like, and by often gazing and looking of them in the face, with a loving and gentle Countenance; and so making them acquainted with the man. The manning of Hawkes.

After your hawks are manned, you shal bring them to the Lure by easie degrees, as first making them iumpe unto the fist, after fal upon the Lure, then come to the voice; and lastly, to know the voice & Lure so perfectly, that either upon the sound of the one, or sight of the other, she wil presently come in and be most obedient, which may easily be performed, by giving her reward when she doth your pleasure, and making her fast when she disobeyeth: short wing'd hawks shal be called to the fist only, and not to the Lure; neither shal you use unto them the loudnesse and variety of voice, which you doe to the long winged hawkes, but only bring them to the fist by chirping your lips together, or else by the whistle: And in this manner of Luring and calling of hawkes, (for short-winged hawkes are said to be called and not Lured) you shal specially acquaint your hawke with three things: First bouldnesse and acquaintance with Men, Dogges, and horses; then that she be eager and sharp set before the Lure be shewed her, knowing both the morning and evening houres of her luring, and lastly to delight her the more with the Lure, to have it ever garnished on both sides with warme and bloody meate. Of Luring of Hawkes.

When your hawkes are throughly manned and lured, and are come to height of flesh and good lust, you shal then spy out a faire day when the weather and aire The bathing of Hawkes.

is most temperate, and carry your Hawke to some faire little, shallow, sandy, running Brook, or rundle where the water is quiet and still, and where your Hawke may stand up the mid thigh therein, and having prickt her downe and made her fast hard by the verdge thereof, you shal take off her hood and go a little way from her, and see where she will bath therein; but if you find her fearefull of the water, you shal with a little sticke paddle in the water a while before her, and then depart from her againe, and let her then bath therein as long as shee pleaseth: this done, you shal take her upon your fist and give her a bit or two of meat, then hold her in the sun, and let her picke, prune, and dry herselfe againe; if you cannot come to any River, brooke, or rundle conveniently, then you shall provide either a large bason, or a broad shallow tubbe, and in it let your Hawke bath as oft as occasion shal serve, for this bathing giveth a hawk courage, boldnesse and a great appetite, & would commonly be used the day or morning before any princely flight: If it be in the winter that your Hawke batheth, when no Sunne shineth, you may then drie her as well by the gentle aire of the fire as otherwise.

Of enseaming, giving casting and scouring.

To enseame your Hawke, which is to cleanse her from grease, fat & glut which lieth inwardly in her body, and which you shall know by her round thighes, hie flesh, and full mewtings; then when you feed her in the morning give her a bit or two of hot meate, and the night following little or nothing, then morning and evening after feede her upon the flesh of a Rooke washt in two waters, till you feele the pinions of her winges more tēder then they were before, then give her casting according to her nature, as was before shewed, and once in two or three daies give her a hennes necke well ioynted

ted and waſhe in water, which wil by the ſharpnes ther-of breake the kells and filmes of fat which are in her body; then every morning you ſhal give her a quicke traine Pidgeon, and keepe her ſo long upon her wing that by her owne moderate exerciſe, ſhe may melt and diſſolve the greaſe that moleſteth her, which after it is broken you may take away, by giving her three or fowre pellets of the roote of Sellandine, as bigge as garden peaſe, wel waſht and ſcowred, and if you ſteepe thoſe pellets in the ſirrup of roſes, the ſcouring is much ſtronger.

When your hawke is manned, lured, and enſeamed, you ſhall then bring her to her flight, which if it be at the Pheaſant or Partridge in woody and cloſe grounds, then you ſhal when you lure the hawke, caſt your lure into ſome lowe tree or buſh, that therby you may bring her to take the ſtand, which when ſhe doth, you ſhal then drawe out your lure, and giving her notice therof, make her ceaze thereon, and ever feed her on the ground and under a buſh, the practiſe whereof wil bring her to delight in the ſtand, and to marke al the advantages which ſhee ſhal get from thence, then bringing her to either Pheaſant, or Partridge, make her flie at a yong one firſt, that being more fooliſh & eaſier ſlaine, ſhe may take delight in her conqueſt. But if you flie any long-winged hawke in the Champaine, then you ſhal by al meanes poſſible keep her from the ſtand, and only maintaine her vpon her wing til you ſpring the Partridge underneath her, and then ſtooping upon the advantage, the prey can hardly eſcape her, yet for the more ſure killing of the game and entring of young hawkes, you ſhall firſt ſpring the Partridge and marke them, then being come to the mark caſt off your hawke, and when ſhe is gotten

Of flying at the Pheaſant or Partridge.

to the hight of her gate lay in your Spannels, and then reviving the Partridge underneath her after the first flight it is impossible she should escape. And in this sort you may fly at manner of long-winged hawkes, for it is not so proper to fly them from the fist; although most of our late *Faulconers* now a daies use it: but for your short-winged hawkes, you shal fly them from the fist onely: And therefore to make them hardy and valiant, you shal first enter them at an old field Partridge, laid in a hole, and covered either with a sodde, board, or hat, at which you shal fasten a small Creance; and then uncoupling your Spannels, as they are raunging about sodainely, when your hawkes head is towardes the Partridge, plucke off the sodde or hatte, and let the traine goe, and the Hawke after it, which as soone as she hath slaine reward her very well, and thus doing twice or thrice, you may after venture to flie her at your pleasure.

Of flying at fowle.

To make your Hawke flie at fowle, which is called the flight at the river, you shal first whistle of an approved well quarried Hawke that is a sure killer, and let her enew the fowle so long til she bring it to the plunge: then take her downe and reward her, and let her by, yet so as you may have her ready to use at your pleasure: then whistle of your yong hawke, and when she is at the height of her gate, and that you have shewed her water divers times to make her the more inward, and by a gibber cal'd her in, when at any time she hath looked on: Then being just over the fowle, make in with all your company on every side the river, and so lay forth the foule, which if your Hawke stoop, strike and truss, you shall presently make in to her, and helpe her, and then crossing the fowles wings, or breaking them, let your

Hawke

Hawke take her pleasure thereon, but if she doe not slay the foule at the first stooping, then you shal give your Hawke leasure to recover her gate againe, & then lay forth the foule as before, not leaving thus to doe til you have landed it, and that the Hawke hath slaine it, & then reward her as before said: But if such a mischiefe shall fal out that the foule doe scape and breake away; then you shal be sure to have a live Mallard readie in your bag, which you may cast foorth, and so reward your hawke thereon.

To keep a hawk in high flying.

If your long-winged hawke flying at the river or in champaine fields vse to take stand which is a foul fault, you shal first by al meanes shunne flying neere trees or covert: but if that do not suffice, then you shal have diverse traines in divers mens hands: and when the hawke offers to goe to the stand, let which is next her cast out his traine; and if she kil it, reward her: this doing once or twice wil reclaime or nothing.

Helpes for faults in long winged hawks, and first of the stand.

If your hawke through pride of grease or otherwise be froward and coy, you shal not when she kils reward her as you were wont, but conveying some other cold meat cunningly under her, let her take her pleasure theron, and ever with the meate give her some fethers which may scower her and make her to cast; for this wil recover her stomacke, and make more careful and diligent.

To bring hawke up-ward.

Against frowardnesse.

If your hawke be of a wilde and stirring nature, and wil not looke inward towards the man with her head, but rake and gase after every checke, neither respecting whooping nor gibbering, in this case you must followe her and lure her backe, and as soone as she turneth in her head, shew her the Luer, to which if she stoup, then presently reward her, and thus do so oft as she raungeth

To make a hawke inward.

til

til she be brought unto that love to your voyce and affection to the Luer, that she wil forget her other extravagant thoughts.

To keep a hawk in high flying,

When your Hawke is brought to flie to an extraordinary high pitch, to maintaine and keepe her in the same manner of flying stil, you shall not flie her above one flight in the day at the most, for nothing bringeth her down more then over Wearinesse. Also you shal then not keepe too extreame a straight hand upon her, for the too much greedinesse of the Quarry makes her slack her flying. Also you shal not flye her upon Rundles, or small brookes, but upon plashes and broad Rivers, you shal not suffer her to flie too long, but after two or three stoopings, and a crossing, although she misse it, take her down with the Luer or traine, and reward her, for this encouragment wil maintaine her in her goodnesse.

To bring hawkes upward,

If your Hawke be high flying, yet sloathfull to get to her Gate, or elle now and then stouping before there be cause, and so losing her Way, which many times happeneth when either the hawke is kept too sharpe, or flowne out of her due time, any of which faults when you perceive, you shal then upon the doing thereof give her a dead Quarry, and then hood her up without reward, and an houre or two after call her to the lure, and feed her: and thus do as oft as she offendeth; yet for the more sure prevention thereof, I would have every *Falconer*, to try the natural disposition of his hawke, And find whether she flieth better on a straight hand, or an open, and whether early or late and so forth, and according to her owne nature ever to keep her.

Short winged hawkes as *Gosbawkes*, & *Sparrow-hawkes* wil many times neither kil their Game, nor flie their

Game

Game to marke, but wil give it over after a little flying, and (as *Faulconers* terme it) turne taile unto it, which when you see, you shal incourage your Dogges to hunt and cast before your hawke a traine partridge, as it were the Wild one, and make her seaze it, and feed well upon it, to incourage her the better; and thus do twice, or thrice, which if you see it prevaile not, then esteeme her not, but make her away, for she wil hardly ever be reclaimed.

Faults in short winged hawks. first of turning taile.

Hawkes that have never beene acquainted with Prey, wil many times not fly at al; but taking a Tree, wil sit and look after the game, which fault to amend, you shal ever feed her upon quicke Birds, and make her foot them, and then going into the field, which is Champion and plaine, after you have Rid up and downe a pretty space with the hawke unhooded, you shall cause one of your company to cast out a field Partridge before your hawke: Then let her flye at it, and so soone as she hath footed it, let her feed thereon at her pleasure, and do thus three or foure times till shee be well in blood, and you shall find her valiant quickly.

If a Hawke wil not fly at all.

If your hawk be so fond of the man, that she wil not flye from him, but after a stroke or two, returnes to him againe: you must then but seldom be familiar with her, and let her rather feed her selfe then be fed by you, and as oft as she commeth so unproperly unto you, you shall give her no reward, but when she forsaketh you and killeth the Game, then you shal wel Reward her, and then make her both familiar with Men, Dogges, and horses, for to take toy or dislike to any of them, is a mischiefe a great deale worse then the former.

Too much fondnes of the man.

To speake of the Mewing of long winged hawkes, you shall understand that she may be set downe, that is,

pas-

put into the Mewe about the middle of *Aprill*, at which time if you finde they have any lice, you shal pepper them, and put them into the Mewe, which if it bee a lowe place upon the ground free from noise, vermine, or any evil aire, then it is called mewing at the stocke; but if you mewe in any high roome with open windowes toward the *North*, or *North-east*, then it is called mewing at large. If you mewe at the stocke, you shal have a broad Table in the midst of the roome, on which you must place sand, gravel, stones, sods, and tubs for water, and in the midst of the sea a free-stone or block of two foote high, to which you shal fasten your hawke with a swivel of iron, so that at no time her leash may be intangled; this manner of mewing may be in the Faulconers owne bed-chamber, or in any other fayre roome at his pleasure, the best meate in the mewe is any quicke birds or fowle, dogs flesh and such like. If you mewe your hawke at large, you shal put her loose into the mew, having sundry pearches therin, some high, some lowe for her ease to sit on; and in this mewe also you shal have, sand, stones, gravell, greene sods and water, all which you shal renewe as often as need doe require, and in the midst of them a blocke or two whereon to tie her meate, which meate shal be the same formerly spoken of and given at certaine and due times, without faile or alteration.

Mewing of long-winged Hawkes.

Mewing at the stone.

Mewing at large.

If you intend to mewe a short winged hawke, as the Gosshawke, or such like, you shal in *March* after you have scowred her and made her cleane from lice, cut off her lesse, and throw her into the Mewe loose, either in high roome or a low roome at your pleasure, let her pearches be lined with canvasse, or with woollen cloth for the safety of her feet, let her have store of water for bathing

Mewing of short-winged hawkes.

and

and oft renewed, and store of meate; as live *Pidgeons*, warme *Mutton*, warme *Goat*, or *Dogs flesh*, any of which will make her Mew quickly.

Hawkes for the field, would be drawne from the Mew in *June*, and made ready to fly in *August*, at which time Corne is cut, and the Game is strong: and *Hawkes* for the River would be drawne in *August*, that they may be ready to fly in *September*. When to draw Hawkes.

Hawkes have divers infirmities and diseases; as Feavers, Palsey, Imposthomes, sore eyes, and Nares, Megrims, Pantas, castingher Gorge, foulenesse of Gorge, Wormes, Fillanders, ill Liver, or Gour, Pinne in the foot, breaking the Pounce, Bones out of Joynt, Bones broken, bruises, Lice, Colds, Frounce, Fistulaes, Stone, much gaping, more foundring, privie evill, taint in the Feathers, losse of appetite, broken wind, blow on the Wing, wounds, swellings, eating their owne feet, taking up of veines in Hawkes, Cramp, and a world of others: All which for as much as I have shewed the Medicines, and cures thereof in the former Treatise called *Cheape and Good*, I will referre you unto the same, and not doubt but it will give you satisfaction. Diseases in Hawkes.

CHAP. VI.

Of coursing with Grey-hounds, and the Excellencies of that sport.

NOw if the mind of our Husbandman be not so generally taken with the delight and pleasure of this recreation of hawking, but that he preferreth before it the delight of coursing with *Grey-hounds*, which is a very noble and worthy pastime, hee shall in it observe these foure things, the *Breed* of *Grey-hounds*, their *Shape*, their Of coursing with Grey-hounds.

their dyet, and the Lawes belonging to the same.

Breeding of Hounds.

Touching the breed of Greyhounds, you are principally to respect the Countries in which they are bred and nourished, as that it be a champaigne plaine and without covert, where a *Hare* may stand forth and indure a course of two miles, or more, as it shal happen (for the coursing of the *Hare*, is that which I purpose most to entreate of) because in a close countrey full of covert, where a *Hare* cannot runne above a quarter of a mile or lesse: both the pleasure of the recreation is taken away, and the Greyhound by an insufficient exercise is made unapt, and unfit for that for which he was created.

Best places for breed.

Now of champaine countries, they are of three kinds, as the low vales, as are the vale of *Belvoire*, the vale of white *Horse*, the vale of *Eusham*, and such like, the high Downes and Heaths, as about *Salisbury*, *Cissester*, *Lincolne*, and many such like places, and the middle between both, as the County of *Northampton*, and *Leicester*, and others like them: All which are very excellent places for the breeding and training up of the best Greyhounds, yet of the three, your vales or middle soiles, which for the most part are errable grounds, are much better to breed and traine on, then your Downes and heathes, because they are much more labourſome, rough, heavie, and in the winter season full of much trouble & false foot-hold, in so much, that a Dog, which is able to run strongly, swiftly, and surely there, must necessarily do it ten times better when he comes to the smooth, plaine, and carpet-like Downe: where on the contrary, the Dog which is trained upon those even Downes, though he be right famous and excellent, when he comes to run in the deepe well plowed field, is to seeke where to bestow his feet, and can neither shew speed, cunning, nor indurance.

The best Greyhounds.

Now

Now the Gentlemen which dwell on the Downes, and plaine grounds, to maintaine the reputation of their Dogs, affirme them to be much more nimble and cunning in turning, then the valley Dogs be, because the faireneſſe of the earth giving them ſo much advantage over the *Hare*, that having her even (as it were) in a manner under their feed, ſhee is put more to her ſhifts, and ſtrives with greater art of ſleights to deceive and get advantage of the Greyhound: And it is true, for by reaſon of the advantage of their hils, which are great and ſteep, though ſmooth and plaine, I have ſeene a vale Dog ſo much deceived, that upon a turne, he hath loſt more ground then hath been recoverable in the whole courſe after: but this is no want of goodneſſe but a little skill, which a moneths courſing will bring a Dog ſo ſufficiently unto, that hee will not need any other reformation then the knowledge of his errour, by his loſſe of labour. So that I conclude the good Dog upon the deepes will ever beate the good Dogs on the plaine. Nimblenes in Greyhounds.

It is an old received opinion amongſt many men of the Leaſh, that the Grey-hound Bitch, will ever beate the Grey-hound Dog, by reaſon of her more nimbleneſſe, quickneſſe and agility: And it is ſometimes ſeene, that a perfect good Bitch indeed, hath much advantage of an ordinary Dog: but if the good Dog meet with the good Bitch, there is then no compariſon, but the Dog will be her Maſter, in as much as he exceedeth her both in length and ſtrength, the two maine helps in courſing; for her nimbleneſſe is then no helpe, ſith a good Dog in the turne will loſe as little ground, as any Bitch whatſoever. Difference betweene Dogs and Bitches.

Yet thus much I would perſwade all Gentlemen of the Leaſh, to be very carefull in their breeding, to breed Dogs and Bitches for breed-

upon

upon the best *Bitches* they can provide, for it is found in experience, that the best *Dog* upon an indifferent *Bitch* will not get so good a Whelpe, as an indifferent *Dogge* upon the best *Bitch*: And amongst these observations in breeding *Greyhounds*; you shall observe to have your *Dogges* and *Bitches* of equall and indifferent ages, as about three or foure yeeres old at the most; but in case of need, your *Bitch* will indure a great deale longer then your *Dogge*, and to breed with a young *Dogge* on an old *Bitch*, may bring forth an excellent *Whelp*.

The shapes of Greyhounds.

Touching the shapes of *Grey-hounds* (from whence you shall take the best Collections for their goodnesse) they are certaine and most infallable: Therefore touching *Greyhounds*, when they are puppies, or young whelpes, those which are most raw-bon'd, leane, loose made, sickle or crooked hought, and generally unknit in every member, are ever likely to make the best *Dogges*, and most shapely: but such as in the first three or foure moneths, are round, and close trust, fat, streight, and as it were full sum'd and knit in every member, never prove good, swift, or comely.

Now after your *Dogge* comes to full growth, as at a yeere and a halfe, or two yeeres old, he would then have a fine long leane head, with a sharpe nose rush-growne, from the eyes downward; A full cleare eye with long eyelids; a sharp eare short and close falling, a long necke, a little bending, with a loose hanging wezand; a broad brest, streight forelegs, side hollow ribs, a streight, square and flat backe, short and strong fillets, a broad space betweene the Hips, a strong sterne or taile; and a round foot, and good large clefts. Now for the better help of your Memory, I will give you an old Rime, left by our fore-fathers, from which you shall understand the true

shapes

shapes of a perfect *Grey-hound*, and this it is.

Of generall foode.

If you will have a good like:
Of which there are few like:
He must be headed like a Snake.
Neckt like a Drake.
Backt like a beame.
Sided like a Breame.
Tailed like a Rat.
And footed like a Cat.

These being the principall members of a good *grey-hound*, if they resemble the proportions of the things above named, the dogge cannot chuse but be most perfect.

Dyetring of grey-hounds to course.

When you have thus a perfect and well-shapt *grey-hound*, your next rule is to apply your selfe to the dyetting and ordering of him, for the pleasure to which you keep him, that bringing him to the uttermost height or strength of wind, you may know the uttermost goodnes that is within him, which disorderly and foule keeping will conceale, and you lose a Iewell for want of knowledge of the value.

Of what dyettin consisteth.

Dyetting then of *grey-hounds* consisteth in foure especiall things, to wit, *foode*, *exercise*, *airing*, and *kenelling*, the first nourishing the body, the second the limbes, the third the wind, and the last the spirits.

Of foode.

To speake then first of food, it is two fold, either generall, or particular; general as for a continual upholding and maintaining of a dogge in good state of body, being in good plight and liking, or particular, when a dogge is either poore, sick, or prepared for wager, standeth in neede of particular foods of advantage.

Of generall foode.

The best general foods for the ordinary upholding of a dogge in a good state of body is chippinges, crustes of bread, soft tender bones or grissels of Veale, Lambe, or such like; first scalded in beefe-broth not very salt, or other broath, in which hath beene boiled, mutton, veale, venison, or any kinde of Pullen, or for want thereof, other cleane scalding water: after your chippings or bread is scalded you shall let it stand and coole, then when your feeding houre commeth, you shall take as much good milke, flotten milke, or butter milke (but the best is most wholsome) as will fully or more then whiten the same, for it is to be intended, that your water must be all drunke up into your bread, and your milke must onely make it swim, and with this feed your dogge morning and evening after you come from walking him, and give him a good and sufficient meale thereof, for this will onely maintaine and uphold him in good state of body, being strong and lusty in flesh before.

Of particular foode.

For particular food, which is when a dogge is poore, sicke or to be prepared for wadger, they be these: First, if he be poore in flesh, sickly or weake, the best food you can raise him up withall is to take sheepes heades wool and all cleane washt, and breake them all to peeces, then put them in a Caldron or Kettle, and after the water hath risen and is cleane skum'd, put unto it good store of oat-meale and sweet pot-hearbs smal chopt together and so boile it til the flesh be tender; then with this meat and the portage feed your *grey-hound* morning and evening, and it wil soone put him into great lust & strength.

Foode for a match.

but if you will prepare him for match and wadger, then you shall make him this diet-bread, take a pecke of the finest and driest oat-meale, & two pecks of good wheat, and having ground them together, boult the meale through

rough a fine boulting cloath, & then ſcattering amongſt it a pretty quantity of any ſeeds and Licoras well beaten together, knead it up with the whites of egges, new Ale and barme mixt together, and ſo bake it in pretty round loaves reaſonable hard, with this bread either ſcalded, as was before ſhewed in your chippings, or put into the pottage with the Sheepes-heads warme, feed your dog morning and evening, to wit, halfe an hour after Sunne riſe, and halfe an hour before Sun ſet, when you come from walking or ayring him, and it will bring him to exceeding great ſtrength of body and pureneſſe of wind.

Houres of feeding.

For the exerciſe of your *grey hound*, it conſiſteth likewiſe in two things, courſing and ayring; and they be every way as neceſſary as is foode, becauſe it onely bringeth ability to his limbes and perfitneſſe to his winde: to ſpeake then of courſing, you ſhall not faile to courſe him at leaſt twice a weeke: If your courſes be ſtrong & long: but thrice a weeke, if they be but reaſonable, as a mile or a mile and a halfe at moſt, and ſometimes if your courſes be ſhort and under a mile. In courſing you ſhall obſerve two things, *blood* and *labour*; *blood*, which is a hartning and animating of your dogge to delight in the pleaſure, when he findes the reward of his paines taking; for if a dog courſe continually and never kill, the ſport will grow yrkſome unto him, and therefore now and then, give him ſuch advantage, that he may kill the Hare, then *labour*, which is contrary to killing; for in it you muſt give the Hare al indiffrent advantage, both by law and otherwiſe, whereby ſhe may ſtand long before the dogge, and make him ſhew his utmoſt ſtrength, before he be able to reach her.

Of exerciſe by courſing.

After your dog hath courſt, if he kill, you ſhall by

Ordering dogs often courfing.

no meanes ſuffer him to brake the Hare, but having taken her from him firſt cleanſe his mouth and chaps from the wool of the Hare, & then give him to eate the liver, lights, and heart, and ſo take him up in your leaſe, leade him home, and there firſt waſh his feete in a little butter and beere, and ſo put him up in the kennel, and halfe an houre after feed him; for upon his courſing dayes you muſt by no meanes give him any meate more then white bread toaſt and butter, or a toaſt and oile, which muſt be given before his morning airing, and ſo kenneled till he goe to his courſe.

Of ayring.

Touching ayring or walking of *grey-hounds*, which is a great nouriſher and increaſer of winde, it muſt dewly be done every morning before Sun-riſe, and every evening before or after Sunne ſet in this manner, as ſoone as you have opened your kennel and rub'd your dogge over with a cleane haire cloth, you ſhall let him play a little about you before the kennell dore, then take him up into your leaſh, and walke him forth into the fields, where for the moſt part are no ſheepe or other ſmall cattell, which they may out of wantonneſſe indanger, and there let him looſe and give him leave to play and ſcope about you, ſo that he may ſkimmer, piſſe, and emptie his body, which when he hath done ſufficiently, you ſhal then take him up in your leaſh againe, and ſo walke him home and kennell him, this you ſhall doe after the ſame manner in the evening, and alſo if your dogge be ſtrong and luſtie at night after ſupper, and then bringing him home bring him to the fire, and there let them ſtretch and beake themſelves, and with your hand grope and cleanſe them from ticks and other filth, which done lead them to the kennel, and ſhut them up for all night.

Now for the kenelling of *Greyhounds*, it is a right neceſſary action and muſt be performed with all diligence, for it breeds in the Dogge luſt, ſpirit, and nimbleneſſe, prevents divers miſchances, and keepes the powers from ſpending till time of neceſſity: and therefore you ſhall by no meanes ſuffer your Dogge to be out of the kennell, but in the houres of feeding, walking, courſing, or when you have other neceſſary buſineſſes to do about him.

Chap. VII.

The Lawes of the Leaſhe or Courſing, As they were commanded, allowed and ſubſcribed by Thomas *late Duke of Norfolke, in the raigne of* Q. Elizabeth.

NOw laſtly, touching the Lawes of the Leaſhe, or Courſing, though they be uncertainly received, & alter with mens various opinions, yet theſe under-written were held for authentical once and invented, received, and ſubſcribed unto by many noble and worthy perſonages, ſuting fully with the reaſons and grounds of the paſtime. Of Kenelling the Greyhound.

Firſt therfore it was ordered that he which was choſen Fewterer or letter looſe of the *Greyhounds*, ſhould receive the *Greyhounds* matcht to run together into his Leaſhe, aſſoone as he came into the field, and to follow next to the Hare-finder til he came unto the forme: and no *Horſeman* nor *Footeman* on paine of diſgrace to goe before them, or on either ſide; but directly behind, the ſpace of forty yards or thereabouts.

Item, that not above one brace of *Greyhounds*, to courſe a *Hare* at one inſtant.

Item, that the *Hare-finder* should give the *Hare* three *So howes* before he put her from her Leat, to make the *Grey-hounds* gaze and attend her rising.

It. That the *Feuterer* shall give the *Hare* twelve score Law, ere he loose the *Grey-hounds*, except it be in danger of losing sight.

It. That Dogge which giveth the first turne, if after the turne be given, there be neither coate, slip, nor wrench extraordinary, then he which gave the first turn shall be held to winne the wager.

It. if one dog give the first turne and the other beare the Hare, then he which bore the Hare shall win.

It. if one dog give both the first turne and last turne, and no other advantage betweene them, that odde turn shall win the wager.

It. that a coate shal be more then two turnes and ago by or the bearing of the Hare equall with two turnes.

It. if neyther Dogge turne the Hare, then he which leadeth last at the covert, shall bee held to winne the wager.

It. if one Dogge turne the Hare, serve himselfe and turne her againe, those two turnes shall be as much as a coate.

It. If all the course be equall, then he onely which beares the Hare shall winne, and if thee be not borne, then the course must be adjudged dead.

It. if he which comes first in to the death of the Hare, takes her up and saves her from breaking, cherisheth the Dogs, and cleanseth their mouths from the wool or other filth of the Hare, for such curtesie done, he shal in curtesie challenge the Hare, but not doing it, he shall haue no right, priviledge or title therein.

It. if any Dog shall take a fall in the course, and yet per-

performe his part, he shall challenge the advantage of a turne more then he giveth.

Item, if one Dog turne the Hare, serve himselfe and give divers coats, yet in the end stand still in the field, the other Dog without turne giving, running home to the covert, that Dogge which stood still in the field, shal be then adiudged to lose the wager.

If any man shall Ride over a Dogge and overthrow him in his course (though the Dogge were the worse Dogge in opinion) yet the party for the offence shall either receive the disgrace of the field, or pay the wager, for betweene the parties, it shall be adiudged no course.

Item, those which are chosen Iudges of the Leashe, shall giue their iudgements presently, before they depart from the field, or else he in whose default it lyeth, shall pay the Wager by a generall Voyce and sentence.

And thus much for the Lawes of Coursing, and those particularities which doe depend thereupon: All which, I submit unto the Correction and amendement of those worthy and wel knowing Gentlemen, who having the Office of the Leash confer'd upon them; have both Authority and Power to make Lawes therein, according unto the Customes of Countries, and the Rules of Reason.

The end of Hawking.

Of particular Recreations.

Chap. VIII.

Of divers other particular Recreations.

Of shooting in the long-bow.

THere be many other particular Recreations necessary for the knowledge and practice of our Husbandman: As first, shooting in the Long-bowe, which is both healthfull for the Body, and necessary for the Common wealth. The first extending the limbes and making them plyant; the other, an able strength fit to preserve and defend his Country. And first for shoting in the Long-bowe, a man must observe these few Rules; first that he have a good eye to behold and discerne his marke; a knowing judgement to understand the distance of ground, to take the true advantage of a side-wind, and to know in what compasse his arrow must fly, and a quicke dexterity to give his shaft a strong, sharpe, and sudden loose, he must in the action it selfe stand faire, comely, & upright with his body, his Left foote a convenient stride before his right, both his hammes stiffe, his left arme holding his Bowe in the midst stretcht straight-out, and his right arme with his three first fingers and his thumb drawing

the

the ſtring unto his right eare, the nocke of his arrow reſting betweene his fore-finger, and long finger of his right hand, and the ſteale of his arrow below the feathers upon the middle knuckle of his fore-finger on his left hand, he ſhall draw his arrow up cloſe unto the head, and deliver it on the inſtant without hanging on the ſtring; the beſt Bowe is either Spaniſh or Engliſh yewe, and the worſt of Witchen or Elme, the beſt ſhaft is of Burch, Sugar-cheſt, or Brazel, and the beſt feather gray or white.

The markes to ſhoote at are three, Buts, Prickes, or Roavers: the But is a levell Marke, and therefore would have a ſtrong Arrow with a very broad Feather: The pricke is a marke of ſome compaſſe, yet moſt certaine in the Diſtance, therefore would have nimble ſtrong Arrowes with a middle Feather, all of one weight and flying; and the Roaver is a marke incertaine, ſometimes long, ſometimes ſhort, and therefore muſt have arrowes lighter, or heavier, according unto the diſtance of place.

Of ſhooting in Crosbowes.

If infirmity in the armes, or backe take from a man the uſe of the Long-bow, he may then with a Crosbow made for gafel carried upon a ſtring, and the nether end placed in a reſt with arrowes made ſtrong, heavy, and ſutable to the ſtrength of the Bow, ſhoot at all the former Markes, and reape the ſame pleaſure he formerly did with his Long-bow.

Of Bowling.

There is another Recreation, which howſoever unlawfull in the abuſe thereof, yet exerciſed with moderation, is even of Phyſitians themſelves held exceeding wholſome, and hath been preſcribed for a recreation to great Perſons, and that is Bowling, in which a man ſhall find great Art in chooſing out his ground, and perven-

ting

ting the Winding, Hanging, and many turning advantages of the same, whether it be in open Wide places, or in close allies, and in this sport, the chusing of the Bowle is the greatest cunning; your flat Bowles being the best for close Allies; your round byassed Bowles for open Grounds of advantage, and your round bowles like a Ball, for greene-swarthes that are plaine and levell.

Not inferiour to these sports, either for health or action, are the Tenise, or Baloone, the first being a pastime in close or open Courts, striking a little round ball to or fro, either with the palme of the hand, or with Racket: The other a strong and moving sport in the open fields, with a great Ball of double Leather fild with Winde, and so driven to and fro with the strength of a mans Arme arm'd in a Bracer of Wood, either of which actions must be learnt by the eye and practise, not by the Eare or Reading.

Of

Of Angling, &c.

Chap. 1X.

The whole Art of Angling, as it was Written in a small Treatise in Rime, And now for the Better Understanding of the Reader, Put into Prose and adorned and inlarged: And First of Angling, the vertue, Use, and Antiquity.

SInce Pleasure is a Rapture, or power in this last Age, stolne into the hearts of Men, and there lodged up with such a carefull guard and Attendance, That nothing is more Supreame, or ruleth with greater strength in their Affections. And since all are now become the sonnes of Pleasure, and every good is measured by the delight it produceth; what worke unto men can be more thankefull then the Discourse of that pleasure which is most comely, most honest, and giveth the most liberty to Divine meditation, and that without all question is the Art of Angling, which having ever beene most hurtlessely necessary, hath beene the sport or Recreation of Gods Saints, of most holy Fathers, and of many worthy and reverend Divines, both dead, and at this time breathing.

For

The use of Angling, and the vertue.

For the use thereof (in its owne true and unabused nature) carrieth in it neither covetousnesse, deceipt, nor anger, the three maine spirits which (ever in some ill measure) ruleth in all their pastimes: neither are alone predominant without the attendance of their severall handmaides, as Theft, Blasphemy or Bloodshed: for in Dice-play, Cards, Bowles, or any other sporte where mony is the goale to which mens minds are directed, what can mans avarice there be accounted, other then a familiar robbery, each seeking by deceipt to cousen and spoile other of that blisse of meanes which God had bestowed to support them and their families? And as in every cõtention there must be a betterhood or super-excelling, so in this, when the weaker deceipt is deprived his expectation, how doth it then fal into curses, oathes, and furies, such as would make Vertue tremble with the imagination.

But in this Art of Angling there is no such evill, no such sinful violence, for the greatest thing it coveteth, is for much labour a little Fish, hardly so much as will suffice Nature in a reasonable stomacke: for the Angler must intice, not command his reward, and that which is worthy millions to his contentment, another may buy for a groate in the market. His deceipt worketh not upon men but upon those Creatures whom it is lawfull to beguile for our honest recreations or needfull uses, and for al rage and fury, it must be so great a stranger to this civill pastime, that if it come but within view or speculation thereof, is no more to be esteemd a Pleasure, for every proper good thereof in the very instant faileth; shewing unto all men that will undergoe any delight therein that it was first invented, taught, and shall for ever bee maintained by Patience onely.

And

And yet I may not say onely *Patience*, for her other three Sisters have likewise a commanding power in this exercise; for *Iustice* directeth and appointeth out those places where men may with liberty use their sport, and neyther doe iniury to their neighbours, nor incurre the censure of incivility. *Temperance* layeth downe the measure of the action, and moderateth the desire in such good proportion, that no Excesse is found in the overflow of their affections. Lastly, *Fortitude* inableth the minde to undergoe the travaile, and exchange of Weathers with a healthfull ease, and not to despaire with a little expence of time, but to persevere with a constant imagination in the end to obtaine both pleasure and satisfaction.

Now for the Antiquity thereof, (for al pleasures, like Gentry, are held to be most excellent, which is most ancient) it is by some Writers sayd to be found out by *Deucalion* and *Pyrrha* his Wife, after the generall flood: others write, it was the invention of *Saturne*, after the peace concluded betwixt him and his brother *Tytan*: and others, that it came from *Belus* the sonne of *Nimrod*, who first invented all holy and vertuous Recreations: and al these though they savour of fiction, yet they differ not from truth, for it is most certaine that both *Deucalion*, *Saturne*, and *Belus*, are taken for figures of *Noah*, and his Family, and the invention of the Art of Angling, is truly sayd to come from the sonnes of *Seth*, of which *Noah* was most principall. Thus you see it is good, as having no coherence with evil, worthy of use: inasmuch as it is mixt with a delightfull profit: and most ancient, as being the Recreation of the first Patriarkes, wherefore now I will proceede to the Art it selfe, and the meanes to attaine it.

The antiquity of Angling.

CHAP.

Chap. X.

Of the Angle-rod, Lines, Corkes, Hookes, and other tooles for Angling.

IN as much as the first ground Worke or Substance of this Art of Angling consisteth in the implements belonging and apperteyning thereunto, and that except a man be possest of them which are most exact, nimble, or necessary for the same, his labour is vaine, and to little or no purpose imployed, and for as much as the Angle-rod is the greatest, principallest, and sole directour of all other Tooles belonging thereunto, I thinke it not amisse to begin with the choyse and order thereof, according to the opinions of the best noted Anglers, which either have bin in times past, or are at this day living.

Of the Angle-Rod.

For the choyse then of your Angle-Rod, you shall understand that some Anglers are of opinion, that the best should be composed of two pieces, a maine body, and a small pliant top. The maine body would be of a fine growne ground-witchen, or a ground Elme, of at least nine or ten foote in length, straight, smooth, without knots, and not much differing, at either end in one substance or thicknesse. It would bee gathered at the fall of the Leafe, neere, or about *All-hallowtide*, and layd up in some dry place, where it may lye straight, and of it selfe season: For to beake them in the fire (as many do) when they are greene, is not so good, but after they be well dryed and seasoned of themselves, then to beake them in the fire, and set them so straight and even that an arrow cannot surpasse them, is excellent; then you may take off the upper rinde, and what with the smoake, and their owne age, their colour will be so

darke

darke, that they will give no reflect into the Water, (which is a principall obſervation.) Your Rod being made thus ſtraight and ſeaſoned, you ſhall at the upper end thereof, with an Augure or a hot iron, but a hot iron is the better, burne a hole about three inches deep, and of a fingers wideneſſe: then on the outſide of the Rod, from the top of the hole unto the bottome, you ſhall warpe it about either with ſtrong double twiſted threed well waxed or pitcht, or with Shoo-makers threed many times doubled, and well waxed with Shoo-makers Waxe, and the laſt end faſtned under the laſt foulds, ſo cloſe and ſo ſure, that it may by no meanes looſe; for this will keep the Rod from cleaving or breaking in that ſame place, where the hollowneſſe was made.

The ſtocke being thus made, you ſhall into the hole fixe the Top, which would be a very ſmall ground Hazell, growing from the Earth upward, very ſmooth and ſtraight, which would be cut at the latter end of the yeare, and lye in ſeaſon all the Winter, the upper Rinde being by no meanes taken off, neither the Rod put into the fire at all, but onely ſeaſoned in a good dry place, where it may lye ſtraight, and have both the Wind and ſome Ayre of the fire to come unto it. This Top muſt be plyant and bending, yet of ſuch a ſufficient ſtrength that it will not breake with any reaſonable ierk, but as it is any way bowed, ſo to returne againe to the former ſtraightneſſe. This tough wand would be of a yard and a halfe, or an Ell at leaſt in length, and at the ſmalleſt end thereof would be faſtned with a warpe of haire, a ſtrong loope of haire, about an inch long, to which you may at pleaſure faſten your fiſhing line: and the bigger end of the top, muſt be thruſt into the ſocket

Of the Top of the Angle rod.

of

of the ſtocke, and made ſo faſt that it may not looſen nor ſhake out with any ſhaking, or other reaſonable violence. And all be the Witchen or ground-elme are accounted the beſt to frame theſe maine ſtockes of, yet I have ſeene very good ſtockes made both of Sallow, Beech, or Popler: For the lighter your Rod is (ſo it bee ſtrong) it is ſo much the better, and more for the eaſe of him that uſeth it.

The Angle-rod of one Peece.

There be other approved good Anglers which allow onely that Rodde which is compoſed all of one entire peece, and think them ſtronger, nimbler, and leſſe caſie all, and thee Rods they would have choſen of an excellent ſtraight and well growne ground-Hazell, being from the bottome to the top finely ruſh growne, the upper end thereof being ſmall, pliant and bending. This Rod would be gathered at the fall of the leafe, when the leaves are ſome fallen and ſome ſticking; as ſoone as you have cut them up, you ſhal cut away the leaves and ſmall ſprigs, yet not ſo neere that you hurt the Barke (for that by no meanes muſt be ſtird, as well for the ſtrength of the Rod, as for the colour, which being darke will not ſo ſoone catch the eie of the Fiſh, and offend them.) Then bringing your Rods home, you ſhal lay them upon a levell floore, and preſſing them downe with good weights, to keepe them from warping, let them lye and ſeaſon al the Winter. Then in the Spring-time take them up, for your purpoſe, which is onely to make the knots ſmooth, and to fixe your loope of haire unto the upper end. Now of theſe Rodds, the longeſt is the beſt, ſo it be ſtraight and wel growne for moſt commonly they are ſo ſhort that they will ſerve to fiſh with, but in little narrow Brookes, or elſe in a Boat in great Waters.

There

There be other Anglers, and many of the beſt and approvedſt iudgements, which allow the Angle-Rod of many pieces: as thoſe which are made of Cane, each piece exceeding another one degree, in ſuch even proportion, that being fixed and thruſt one within another they wil ſhew as one even & moſt ſtraight ruſh-growne body, without any crookedneſſe or other outward evill favouredneſſe: theſe pieces would not be above foure foot in length a piece, and three ſuch pieces, which make twelve foot, are ſufficient for the ſtocke of the Rodde, beſides the toppe: now for thoſe ends which are the ſockets, into which you fixe the other Canes, you ſhall hoope them about with fine plates of Braſſe, an inch and an halfe broad, well ſodered, and ſmoothly filed, which will keepe the Cane from cleaving: and for the toppe of this Rod, the round Whale bone is thought the beſt, and ſurely in my conceit ſo it is, both for this or any other rodde whatſoever, for it is tough, ſtrong, and moſt plyant: theſe Rods moſt commonly are made to have the ſmall Canes thruſt downe into the wide Canes, ſo that a man may walke with them as with a ſtaffe, and when he pleaſeth to drawe them forth, and uſe them as occaſion ſhall be offered: the onely exception which is taken at theſe kinde of Roddes, is the bright colour of the Cane, which reflecting into the water, oft times ſcareth the Fiſh, and maketh them afraid to bite. But if you fiſh in deepe and thicke waters, there is no ſuch matter, for the ſhadow of the Rodde is not diſcerned through the Sun, onely in ſhallow and cleere Brookes it is a little hinderance, and therefore he which is a Maſter in this Art will umber and darken the Rodde, by rubbing it over a gentle fire with a little Capons greaſe, and browne of Spaine, mixt together.

The Angle-rod of many pieces

Of the Lines.

Now for your Lines, you ſhall underſtand that they are to be made of the ſtrongeſt, longeſt, and beſt grown Horſe haire that can be got, not that which groweth on his Maine, nor upon the upper part or ſetting on of his tayle, but that which groweth from the middle and inmoſt part of his dock, and ſo extendeth it ſelfe down to the ground, being the biggeſt and ſtrongeſt haires about the Horſe: neither are theſe haires to be gathered from poore, leane, & diſeaſed Iades of little price or value, but from the fatteſt, ſoundeſt, and proudeſt Horſe you can finde, for the beſt horſe hath ever the beſt haire; neither would your haires be gathered from Nagges, Mares, or Geldings, but from ſton'd Horſes onely, of which the blacke haire is the worſt, the white or grey beſt, and other colours indifferent: thoſe lines which you make for ſmall Fiſh, as Gudgeon, Witling, or Menow, would be compoſed of three haires: thoſe which you make for Pearch, or Trout, would be of five haires: and thoſe for the Chub or Barbell, would be of ſeaven: to thoſe of three haires you ſhall adde one threed of ſilke: to thoſe of five two threeds of ſilke: and to thoſe of ſeaven three threeds of ſilke: you ſhall twiſt your haires neither too hard nor too ſlacke, but even ſo as they may twinde and coutch cloſe one within another and no more, without either ſnarling or gaping one from another: the end, you ſhall faſten together with a fiſhers knot, which is your ordinary faſt knot, foulded four times about, both under and above, for this will not looſe in the water, but being drawne cloſe together will continue when all other knots will faile, for a haire being ſmooth and ſtiffe, will yeeld and goe backe if it be not artificially drawne together: your ordinarie Line would be betweene three and foure fadome

dome in length, yet, for as much as there are diversities in the length of Rods, in the depth of waters, and in the places of standing to Angle in, it shall be good to have Lines of divers lengths, and to take those which shall be fittest for your purpose.

The colouring of Lines.

These Lines, though the naturall haires, being white or grey, be not much offensive, yet it shall not be amisse to colour them according to the seasons of the yeere, for so they will least scare the Fish, and soonest intise them to bite with most greedines: and of colours the best is the Water-greene, which you shall make after this manner: Take a pottle of Allome water, and put thereunto a great handfull of Marigolds, and let them boile well till a yellow skum rise upon the water, then take halfe a pound of greene Coperas, and as much Verdigrease, beaten to fine powder, and put it with the haire into the water, and so let it boile againe a pretty space, and then set it by to coole for halfe a day: then take out your haire, and lay it where it may dry, and you shall see it of a delicate greene colour, which indeed is the best Watergreene that may be.

This colour is excellent to angle with in all cleere waters where the Line lies plain and most discovered, and will continue from the beginning of the Spring to the beginning of Winter. Now if you will have your Lines of a yellow colour, you shall boile your haire in Allome water mixt onely with Marigolds, & a handful of Turmerick: but if you cannot get Turmericke, then you shal stamp so much of greene Walnut-tree leaves, and mixe it with the water, and steepe your haire therein twenty and foures at least.

Lines of this colour are good to Angle with in waters that are cleere, yet ful of weeds, sedge, & such like,

for it is not unlike to the ſtalkes of theſe weedes, and it will well continue to Angle withall the firſt part of the winter, as from before Michaelmas till after Chriſtmas.

If you will have your Lines of a Ruſſet colour, you ſhall take a quart of Allome water, and as much ſtrong Lye, then put thereto a handfull of ſoot, and as much browne of Spaine, and after it hath boyled an houre or two, ſet it by to coole, and when it is colde ſteepe your hayre therein a day and a night, and then hang it up to dry: theſe coloured Lines are good to Angle with in all deepe waters, whether they be Rivers or ſtanding Pooles, as Ponds, and ſuch like, and are moſt in uſe from Chriſtmas till after Eaſter.

Now if you wil have your Lines of a Browne or Duſkiſh colour, you ſhall take a pound of Vmber, and halfe ſo much Soote, and ſeeth it in a pottle of Ale a good ſpace, then when it is cold ſteep your haires therein a day and a night, and then hange them up to dry, and the colour will be perfect, yet ever the darker you would have it, the more Vmber put unto it: theſe Lines are excellent to Angle with in waters that are black, deep, and muddy, be they either running or ſtanding waters, and wil continue all ſeaſons of the yeare whatſoever, onely in bright waters they are too blacke, and caſt too large a ſhadow. Laſtly, if you would have your Lines of a tawny colour (although in the water it ſheweth almoſt alone with the other darker colours) you ſhall take Lime and water, mixe it together, & ſteep your haire therin halfe a day, and then take it forth and ſteepe it double ſo long time in Tanners ouze, and then hang it up to dry, and the colour will be perfect: theſe Lines are beſt to Angle with in moriſh and heathy waters, which are of a reddiſh colour, and wil ſerve for that

purpoſe

purpose al seasons of the yeare: if with this colour, or the greene, you mixe a silver threed, it will not be amisse, & with the other colours a gold threed, it is good also: and note, that at each end of your Line you make a loope, the one to fasten to the toppe of your Rodde, being the larger, and the other to fasten your hooke-Line unto, which would be somewhat lesser.

Of the Corke.

After your Lines be made, you shal make your Corks in this manner: take of the best and thickest Corke you get, and with a fine Razor having pared it smooth on the outside, cut it into the fashion of a long *Katherine* Peare, bigge and round at the one end, & long and slender at the other, and according to the strength of your Line, so make your worke bigger or lesser, as for a Line of three haires, a Corke of an inch and halfe in length, and as much in compasse in the thickest part, is bigge enough: and for a Line of more haires, a Corke of more length, & compasse will become it: and indeed to speak truly, for as much as it serveth, but only for a direction to your eie to know when the fish bireth, & when you shal strike, the lesser your Corke is, the better it is, and breedeth lesse affright in the water, in so much that many anglers will fish without any Corke, with a bare quill only, but that it is not so certaine, nor giveth so sure direction as the Corke doth. After you have shaped your Corke, you shal with a hot Iron boar a hole, long-wise, through the middest thereof, and into that hole thrust a quil, & through the quill draw your Line, and fasten them both together with a wedge of the hard end of the goose feather: and note that both your quill and your wedge bee white, for that breedeth least offence on the water, then place the smaller end of your Corke downe towards your hooke, and the greater end towards your rod, that

the ſmaller end, ſinking downe with the hook, the bigger may floate aloft and beare the quill upward, which when at any time, you ſee or perceive puld downe into the water, then you may ſafely ſtrike, for without doubt it is an aſſured ſigne that the fiſh hath bitten at the baite.

There be other Anglers which make their Corkes in the faſhion of a Nunne-gigge, ſmall at both ends, and bigge in the middeſt, and it is not much to be diſliked, onely it is a little ſooner apt to ſinke, and you may thereby ſtrike before the fiſh have fully bitten. Others ſhape their Corkes in the faſhion of a whirle, or of a little Apple, round, flattiſh of both ſides, and this Corke is beſt to Angle for the greateſt fiſhes, becauſe it being not ſo apt to ſinke, will floate till the hooke be faſtned, and that the fiſh beginneth to ſhut away with the bayte, ſo that a man then ſtriking can ſeldome or never loſe his labour.

Of Angling hooke.

Next to your Corkes is your hookes, and they beare divers ſhapes and faſhions, ſome bigge, ſome little, ſome between both, according to the fiſh at which you angle, the beſt ſubſtance whereof to make them, is either old Spaniſh Needles, or els ſtrong Wyer drawne as neere as may be to that height of tempers, which being mixed and alayd in the fire, you may bend and bowne your pleaſure. Now for the beſt ſoftning of your wyer, if you make your hookes of old Needles, you ſhall neede but to hold them in the blaze of a Candle till they be red hot, and then let them coole of themſelves, and they will be ſoft, & plyant enough, but if you make your hookes of ſtrong Spaniſh wyer, you ſhall roule it round, and then lay it upon burning Char-coales,

turning

turning it up and downe til it be all red hot in every place, then let it gently coole of it selfe, and it will be soft enough.

Now for the making of your hookes, I advise you to go to such as are best reputed for making of them & buy of al sorts of hookes from the biggest to the least, that is to say, from that which taketh the Loach, to that which taketh the Salmon, and let them lye before you for examples: then looke of what sort of hookes you intend to make, and with a fine file, first make the point of your hook, which would neither be too sharpe, for then it wil catch hold of every thing, when it should not, nor too blunt, least it faile to take hold when there is occasion: therefore in that observe a meane, making it lesse sharpe then a fine Needle, and more sharpe then a small pinne.

When you have made the point, then with a thinne knife of a very good edge, you shal cut out and raise up the berd which you shal make greater or lesse, according to the bignesse of the hook, & the strength of the wyer: for you must by no meanes cut the beard so deepe, that thereby you weaken the hooke, but it must be as strong in that place as any other. When the point and beard is made, you shal with a fine paire of round plyers turne & cõpasse the hook about, making it round, circular-wise, being somewhat more then a semicircle, and ever observe that the rounder the compasse or bought commeth in, that so much the better proportioned the hook is. This done, you shall leave as much as you thinke convenient for the shanke, and then cut it off from the rest of the Wyer: which done, you shall beate the end downe flat, & somewhat broader then the rest, and so polish and smooth it all over, then heating it

red hot in a little pan of Charcoales put it suddainely into the Water, and quench it, which will bring your hook to a full strength and hardnesse. Thus you see how to make hookes of al sizes and shapes, whether they be single or double hooks, for although the quantities alter, yet the shapes doe not; & the double hookes which is, the Pike-hooke is no other, but two single hookes al of one Wyer, turned contrary waies: and this double hooke must not have the Line fixt unto it, but a strong Wyer ioynted unto it of three inches long, wel wound about and warped with a smaller Wyer: then to another Wyer of the same length, as if they were two several linkes ioyned together, and then the Line fixed to the last Linke, and therefore are called armed hookes, for they defend the line from shearing or cutting in pieces with the teeth of the Pike.

Now for your single Hookes, you shall thus fixe them unto your Lines, take a length of your twisted Hayres, containing that number which is fit for the hook, and having made a strong loope at the one end, lay the other end where is no bough upon the inside of your hook, then with a strong red silke, either single or double, according to the bignesse of the hooke, being wel waxed, whippe and warp the hook round about, as thick, close, and straight as may be, in such sort as you see men whip their Bow-strings, and in the same manner make the ends of your silke fast; then with a payre of sizers cut the silke and haires off close by the hooke, and you may be sure, that they will not loose one from another, with reasonable violence.

After your hook is thus fastned to your Line, you shall then lumber your Line, which is to fixe certaine pieces of Lead, according to the bignesse of your Line

about

about it, ſome being in length a quarter of an inch, ſome halfe an inch, ſome bigger, and ſome leſſe, according unto the weight of your Hooke, and bigneſſe of your Corke, for theſe plumets are but onely to carry downe your hooke, and lay it in the bottome, neither being ſo heavy to make the Corke ſinke, nor ſo light as not with the ſmalleſt touch to make the Corke dip into the water; you ſhall then underſtand that your firſt plumet would be twelve or foureteene inches from the Hooke, the reſt not above one inch diſtance one from another, not being above five or ſeaven at the moſt, albe ſome Anglers uſe nine, and ſome more, as their fancies rules them. There is in plumbing of Lines three ſeveral faſhions of plumets uſed, as one long, another ſquare, and the third in a Diamond forme, but all tending to one end, have but one uſe, and the long ones are accounted the beſt, ſo that they be neatly ſet to, and the ends very ſmooth and cloſe layd downe, ſo that they tangle not the Line by catching hold upon Weeds, or other traſh in the bottome of the water.

Thus have you ſeene the beſt choiſe of Rods, Lines, Corkes, and Hookes, and how to fixe and couple them altogether to doe their ſeverall Offices, it now reſteth that we ſpeake of other neceſſary implements, which ſhould accompany the painefull and induſtrious *Angler*, and they be theſe: He ſhall beſides theſe before ſpoken of, have a large Muſket bullet, through which having fixed a double twiſted threed, & thereof made a ſtrong loope, he may at his pleaſure hange it upon his hooke and therewith ſound the depth of every water, and ſo know how to plumbe his lines, and place his Corke in their due places, then he ſhall have a large ring of lead, ſix inches at leaſt in compaſſe, & made faſt to a ſmall long line, through

Of other Implements for Anglers.

through which, thrusting your Angle-rod and letting it fall into the Water by your haire Line, it will helpe to unlooſe your Hooke if it be faſtned, either upon weeds or other ſtones in the Water.

Then he ſhall have a fine ſmooth board of ſome curious Wood for ſhew ſake, being as bigge as a Trencher, and cut battlement-wiſe at each end, on which he ſhal fold his ſeveral Lines. His hookes he ſhal have in a dry cloſe boxe; he ſhal have a little Bagge of red cloath, to carry his wormes in, and mixe with them a little freſh mould & Fennel; then he ſhal either have a cloſe ſlope Horne, in which he ſhall keepe Maggots, Bobbes, palmers, and ſuch like, or a hollow Cane, in which he may put them, and Scarrabs: He ſhall have a cloſe boxe for all ſorts of live flies, and another for Needles, Silke, Threed, Waxe, and looſe haires, then a roule of pinke threed to mend the Angle-rod withall, if it chance to breake, a file, a knife, a pouch with many purſes, in which you may place all your implements whatſoever ſeverally.

Laſtly, he ſhall have a little fine wanded pebbe to hang by his ſide, in which he ſhall put the fiſh he catcheth, and a ſmall round Net faſtned unto a poales end, wherewith he may land a pike, or any other great fiſh of that kind whatſoever. To have alſo a little Boate or Cot, if you Angle in great waters, to carry you up and downe, to the moſt conveniente ſt places for your paſtime, is alſo right neceſſary and fit for an Angler, and thus I have ſhewed you the ſubſtance of the Anglers inſtruments.

CHAP.

Chap. II.

of the Anglers Apparell, and inward qualities.

TOuching the anglers apparrel (for it is a respect as necessary as any other whatsoever) it would by no meanes be garish, light coloured, or shining, for whatsoever with a glittering hew reflecteth upon the water, immediatly it frighteth the Fish, and maketh them flie from his presence, no hunger being able to tempt them to bite, when their eye is offended: and of all creatures there is none more sharpe sighted then Fishes are. Let then your apparel be plaine and comely, of a darke colour, as Russet, Tawny, or such like, close to your body, without any new fashioned slashes, or hanging sleeves, waving loose, like sailes about you, for they are like Blinkes which will ever chase your Game from you: let it for your own health and ease sake, be warme and well lined, that neither the coldnesse of the ayre, nor the moistnes of the water may offend you: keep your head and feet dry, for from the offence of them springeth Agues, and worse infirmities. Anglers apparell.

Now for the inward qualities of the mind, albe some Writers reduce them into twelve heads, which indeed whosoever injoyeth cannot chuse but be very compleat in much perfection, yet I must draw them into many moe braunches. The first, and most especial whereof, is, that a skilfull Angler ought to bee a generall Scholler, and seen in all the Liberal Sciences, as a Grammarian, to know how either to Write or discourse of his Art in true and fitting termes, either without affectation or rudenes. He should have sweetnes of speech to Anglers vertues.

to perſwade and intice other to delight in an Exerciſe ſo much Laudable. He ſhould have ſtrength of arguments to defend and maintaine his profeſſion, againſt Envy or ſlaunder. Hee ſhould have knowledge in the Sunne, Moone, and ſtarres, that by their Aſpects hee may gueſſe the ſeaſonableneſſe, or unſeaſonableneſſe of the weather, the breeding of ſtormes, and from what coaſtes the Winds are ever delivered. Hee ſhould bee a good knower of Countries, and well uſed to high wayes, that by taking the readieſt pathes to every Lake, Brooke, or River, his iournies may be more certaine and leſſe wearifome. He ſhould have knowledge in proportions of all ſorts, whether Circular, Square or Diametricall, that when he ſhall be queſtioned of his diurnall progreſſes, he may give a Geographicall deſcription of the Angles and Chanels of Rivers, how they fall from their heads, and what compaſſes they fetch in their ſeverall windings. He muſt alſo have the perfect Art of numbring, that in the ſounding of Lakes or Rivers, he may know how many foot or inches each ſeverally containeth, and by adding, ſubtracting, or multiplying the ſame, he may yeeld the reaſon of every River ſwift or ſlow Current. He would not be unskilful in Muſicke, that whenſoever eyther melancholy, heavineſſe of his thought, or the perturbations of his owne fancies ſtirreth up ſadneſſe in him, he may remoove the ſame with ſome godly Hymne or Antheme, of which *David* gives him ample examples.

He muſt be of a well ſetled and conſtant beliefe, to inioy the benefit of his Expectation, for then to Deſpayre, it were better never to put in practiſe: And he muſt ever thinke where the waters are pleaſant and any thing likely, that there the Creator of all good things hath

hath ſtored up much of his plenty : and though your ſatisfaction bee not as ready as your wiſhes, yet you muſt hope ſtill, that with perſeverance you ſhall reape the fulneſſe of your Harveſt with contentment : Then hee muſt be full of love, both to his pleaſure and to his Neighbour : To his pleaſure, which otherwiſe would be irkeſome and tedious, and to his neighbour, that he neither give offence in any particular, nor bee guilty of any general deſtruction : Then hee muſt be exceeding patient, and neither vexe nor excruciate himſelfe with loſſes or miſchances, as in looſing the prey when it is almoſt in the hand, or by breaking his Tooles by ignorance or negligence, but with a pleaſed ſufferance amend errours, and think miſchances inſtructions to better carefulneſſe.

He muſt then be ful of humble thoughts, not diſdayning when occaſion commands to kneel, lye downe, or wet his feete or fingers, as oft as there is any advantage given thereby, unto the gaining the end of his labour. Then he muſt be ſtrong and valiant, neither to be amazed with ſtormes, nor affrighted with Thunder, but to hold them according to their naturall cauſes, and the pleaſure of the Higheſt : neither muſt he, like the Foxe which preyeth upon Lambes, imploy all his labour againſt the ſmaller Frie, but like the Lyon that ſeazeth Elephants, thinke the greateſt Fiſh which ſwimmeth, a reward little enough for the paines wich he indureth. Then muſt he be liberall, and not working only for his owne belly, as if it could never be ſatisfied; but he muſt with much cheerefulneſſe beſtow the fruits of his skill amongſt his honeſt neighbours, who being partners of his gaine wil doubly renowne his tryumph, and that is ever a pleaſing reward to vertue.

Then

Then muſt he be prudent, that apprehending the Reaſons why the Fiſh will not bite, and all other caſuall impediments which hinder his ſport, and knowing the Remedies for the ſame, hee may direct his Labours to be without troubleſomeneſſe: Then he muſt have a moderate contentation of minde, to be ſatisfied with indifferent things, and not out of an auaricious greedineſſe thinke every thing too little, be it never ſo abundant: Then muſt he be of a thankfull nature, praiſing the Author of all goodneſſe, and ſhewing a large gratefulneſſe for the leaſt ſatisfaction: Then muſt he be of a perfect memory, quicke, and prompt to call into his minde all the needfull things which are any way in his exerciſe to be imployed, leaſt by omiſſion or by forgetfulneſſe of any, he fruſtrate his hopes, and make his Labour effectleſſe. Laſtly, he muſt bee of a ſtrong conſtitution of body, able to indure much faſting, and not of a gnawing ſtomacke, obſerving houres, in which if it be unſatisfied, it troubleth both the minde and body, and looſeth that delight which maketh the paſtime onely pleaſing.

Thus having ſhewed the inward Vertues and qualities which ſhould alwayes accompany a perfect Angler, it is very meet now to give unto you certaine Cautions, which being carefully obſerved, you ſhall with more eaſe obtaine the fulneſſe of your deſires. Firſt therefore, when you goe to Angle, you ſhall obſerve that al your Tooles, Lines, or Implements be (as the Sea-man ſaith) yare, fit, and ready, for to haue them raueld, ill made, or in unreadines, they are great hinderances unto your pleaſure. Then looke that your baites be good, ſweete, fine, and agreeing with the Seaſon: for if they be otherwiſe unproper in any of their natures, they are

Cautions.

uſe-

uſeleſſe, and you had beene better at home then by the River. Then you muſt not Angle in unſeaſonable times, for the Fiſh not being inclined to bite, it is a ſtrange intiſement that can compell them: Then you muſt be carefull neither by your apparell, motions, or too open ſtanding to give affright to the Fiſh, for when they are ſcared, they flye from you, and you ſeeke ſociety in an empty houſe. Then muſt you labour in cleere and untroubled waters, for when the Brookes are any thing white, muddy, and thicke, either through inundatiõs or other trouble, it is impoſſible to get any thing with the Angle: Then to reſpect the temper of the weather, for extreame winde or extreame cold taketh from Fiſh all manner of appetite: So doth likewiſe too violent heate or raine, that is great, heavy, and beating, or any ſtormes, Snowes, Hailes, or bluſtrings, eſpecially, that which commeth from the Eaſt, which of all is the worſt: thoſe which blow from the South are beſt, and thoſe which come from the North or Weſt are indifferent: Many other obſervations there are, but they ſhall follow in their due places.

Chap. XII.

Of the beſt and worſt Seaſons to Angle in, and their uſes.

BEfore I direct you in the beſt Seaſons, and their contrary, for the generall Art of Angling, I thinke it not amiſſe, a little by the way, to give you a glaunce or ſpeculation how to order your Body and Art of each ſeverall water: for the manner of your ſtanding and concealing of your ſelfe, is a materiall and chiefe point in this Art.

Know

The Anglers manner of standing.

Know then, that if you Angle in any Pond or standing water, you shall before you fall to your busines, with your Plumbe, sound the water in divers places, and where you find it deepest, blackest, and least transparent, there you shall stand to Angle, placing your selfe under the banke, and if it be possible, so as your shaddow may be carried from the water: For you must at no time, if you can chuse, let your shaddow lye upon the water: and although in these deepe places your standing open or close, are either of them reckoned indifferently, because the waters depth is a sufficient concealement, yet the closer you stand is accounted amongst Anglers most handsome and artificiall.

But if you goe to Angle at the River, then the best place to cast in your Line, is where it is deepest and clearest, so as you may behold the Sand or Gravell at the bottome: and in these places you shal strive to conceale your selfe as much as is possible, as standing behind Poplars, Oziers, or other Trees, or under the covert of some Banke, Rocke, or other ruines at the side of the River: also in covert places, where are many Weeds, roots of Trees, and other rubbish, is good Angling, but very troublesome, for Fish lying there warme and in safety, wil have a great resort thereunto, and bite freely, so that the Angler must be careful in the putting in of his hooke, and very deliberate in striking, least doing any thing rashly, he break his Line and Hooke, being never so little intangled.

It is good also to Angle in Whirle-pooles, for they being like pits within the Rivers, are seldome unfurnished of the greatest Fishes; also, it is good to Angle at the fals of waters, as under Bridges, standing behind the Iawmes and Arches, or at the flood-gates of Mils, being

being hid with the higher Timbers. And generally where you ſe the Water is deepeſt, cleareſt, and calmeſt, being leaſt troubled with wind or weather, is the fitteſt place to angle in. Other obſervations there are, but they will follow in more neceſſarie places

To returne then to our firſt purpoſe. You ſhall know the beſt ſeaſons to Angle in, is from Aprill till the end of October, ſpeaking of the general uſe of the pleaſures and the beſt houres alſo in generall account, are from foure in the morning till nine, and from three in the afternoone till after five in the Evening, the winde blowing from South, Weſt, or North, and the ayre temperate, inclined to warmeneſſe: but to ſpeake of particular obſervations of ſeaſons, know, that if the day be darke, cloſe, and lowring, or have a gentle whiſtling winde playing upon the water, it is good to Angle in, and the Fiſh will bite with pleaſure: nay, if a fine mizling dew of rayne fall gently, without violence, they wil then byte the faſter: alſo after floods are gone away, and the Rivers are come within their owne bankes, their firſt cleereneſſe recoverd, and the water pure, then it is good to Angle. And generally for your Summer Angling chuſe the cooleſt time of the day, for in the heate of the day Fiſh betake themſelves to their reſt, and will neither byte nor play.

The beſt ſeaſons to Angle in.

But for your Winter Angling, which is from October to Aprill, you ſhall not make any difference of time, if the weather be calme, for all houres of the Sunne are alike, onely that the noon-tide or mid-day is moſt preferred, eſpecially in Ponds, and ſtanding waters. If the water where you Angle, ebbe or flow, the beſt time of Angling is held to be in the ebbe: yet in ſome places where the tyde is not great, there the floud is preferred.

Laſtly, whenſoever you ſee the Trout play or leape above the water, and the Pyke ſhut in purſuite of other Fiſhes, it is then a very good time to Angle in, uſing ſuch baite as are then meet for the moneth and ſeaſon, as ſhall be ſhewed hereafter.

Seaſons ill to Angle in.

Now for thoſe ſeaſons which are naught to Angle in, there is none worſe then in the violent heat of the day, or when the Windes are loudeſt, Raine heavieſt, Snow and Hayle extreameſt: Thunder and Lightning are offenſive, or any ſharpe ayre which flyeth from the Eaſt: the places where men uſe to waſh Sheepe you ſhall forbeare, for the very ſmell of the wooll will chaſe fiſh from their haunts. Land floods are enemies to Anglers, ſo alſo at the fall of the leafe is the ſhedding of leaves into the water, and many other ſuch like pollutions, of which we will ſpeake ſomething more hereafter.

Of Fiſhes haunts.

Therefore, to conclude this Chapter, and to ſhew you as well how to finde your fiſh, as the Art to take it being found, you ſhall know that the Carpe, Eele, and Tench, doe ever haunt muddy places: the firſt, which is the Carpe, lieth ever in the depth and bottome thereof: the Tench, among the weedes and roots of Sedges, and the Eele under ſtones, blockes, or the roots of Trees.

The Breame, the Chavin, and the Pyke, haunt ever in the clear and ſandie bottome, the Pyke where you ſee great ſtore of ſmall fry: the Cheavin where the ſtreame runneth ſwifteſt, and the ſhade is greateſt, and the Breame where the water is broadeſt, and the depth giveth greateſt liberty; and generally theſe three ſorts of fiſh delight more in ſtanding waters then in running Rivers, although the ancient Proverb is,

Aucom

Ancome Ele, and Witham Pike,
In all England is none like.

which are Rivers in *Lincolneshire*. Now the Salmon hath his haunt in the swiftest and broadest rivers, whose Channels fall downe into the Sea: The Trout loveth smaller brooks, whose currant is swift, cleare, and gravely, and ever hath his lodging in the deepest holes that are therein; and the Pearch haunteth rivers of the same nature, only he abideth most in the creeks and hollownesses, which are about the bank, and indeed these three fishes generally, Salmon, Trout, and pearch, love cleare streames, being greene with weeds, and the bottomes hard with gravel and pibble.

The Gudgeon, the Loach, and the Bullhead, haunt ever shalloweſt places, and where streames are slow, yet transparent: The Barbell, Roch, Dace, and Ruffe, haunt the deep shady places of those brooks which are mixt with more sand then gravell, or where the clay is firme, and not slimie, and delight ever to lye under the shadowes of trees, brambles or other things growing from the banke.

The Luce or Lucerne, which indeed is but the overgrowne pyke, haunteth the broad and large Meares, which are miles, in compasse, being deepe and still, and ever lodgeth in the bottome thereof amongst the rootes and tufts of Sedge, and Bulrushes, being quiet and least troubled. The Humbet haunts the clayie Rivers of hye Countries, where the Soyle is rich and ful of Marle, or in Lakes or ponds of the same nature. The Shade and Tweat, haunt those waters which are brackish, deepe, and accustomed to ebbe and flow,

and where they haunt', there commonly alſo is found both the Mullet and the Suant, all which love to lodge cloſe and flat at the bottome of the water, ſo it be more Ooze then gravell

Obiection. But heere now me thinkes, I heare the curious reprehend me, ſaying, that if theſe Rules ſhould be infallible, that then no River or Pond could containe above three ſorts of Fiſh onely, when daily Experience ſheweth us, that ſome Rivers have ten, ſome twenty, and ſome thirty, as the *Treat*: For example, whoſe ancient name in the French is *Triante*, in Latine *Trigenta*, and in Engliſh thirty, derived from this ground, becauſe there ſtandeth upon her thirty Caſtles, thirty Market Townes, and are in her thirty ſeverall ſorts of fiſhes.

Anſwer. To which I thus anſwer, that foraſmuch as into moſt Rivers falleth many ſeverall Waters, and many ſoiles, according unto the nature of thoſe Countries, through which the Cannels runne; that therefore every alteration of ſoile may alter the breed of Fry, and many ſeveral kindes may be in one Streame, ſo that the Angler in the choiſe of his paſtime in ſuch places, muſt eyther have a perfect knowledge how the ſoiles doe alter (which he may commonly know by the Bankes,) or elſe relie upon his Experence, which will be the beſt Tutor to direct him unto the haunts of ſeverall Fiſhes, but for ponds or ſtanding waters which are of one earth, there you ſhall ſurely find them beſt proſper, which are before rehearſed.

Chap. XIII.

Of Baites in generall, and of every particular kind, their Seasons, Vse and Preservations.

SInce I have thus far orderly passed over the outward & instrumental necessaries appertaining to this modest Recreation, shewing the several tooles and implements which are to be imployed therein, and have also shewed the inward and mentall knowledge which should be harboured in his Breast that wil be an angler: I will now proceede to speake of the Baites and intricements, which are the agents and effecters of our desires in this pastime, without which all other imployments are vaine and uselesse: for what doth it availe to have all other things in perfection, when this, which is the strength and life of the rest, is either imperfect or defective.

To speake then generally of Baites, they are divided into three kinds, which are, Live baites, Dead-baites, & Baties living but in apparance onely. Your Live baits are wormes of all kindes, especially the Red Worme, the Maggot, the Bobbe, the Dor, browne Flyes, Frogs, Grashoppers, Hornets, Waspes, Bees, Snailes, small Roches, Bleakes, Goodgins or Loches. Your dead baites are pastes of all makings, young brood of Waspes dried or undried, the clottered blood of Sheep, Cheese, Bramble-berries, Corne, Seedes, Cherries, and such like. And your baites which seeme to Live, yet are Dead, are Flyes artificially made of all sorts and shapes, made of silke and Feathers about your hookes, which will serve for every severall Season through the

yeere, and being by your line mooved upon the water, ſeem to be live Flyes, which the fiſh with great greedineſſe will catch up and devoure.

Seaſons. Now for the ſeaſons, in which theſe baites are moſt profitable, you ſhall underſtand that the red-worme will ſerve for ſmall fiſh all the yeere long: the Maggot is good in Iuly, the Bobbe and Dore in May, the browne Flies in Iune, Frogges in March, Graſhoppers in September, Hornets in Iuly, Waſpes and Bees in Iuly, Snayles in Auguſt. For the Roche, Bleake or Gudgin, they ſerve the Pyke at any ſeaſon: all Paſtes are good in May, Iune, and Iuly: dryed Waſpes in May: Sheepes-blood and Cheeſe in Aprill: for Bramble berries, Corne and Seedes, they are good at the fall of the leafe.

Of Flyes. Laſtly for your dead Flyes, which are moſt proper for the Trout or Grayling, you ſhall know that the Dun flie is good in March, being the leſſer, but the greater Dun flie will ſerve the latter end of February: the Stone flie is good in Aprill, the Red flie, and Yellow flie in May, the Blacke flye, the darke Yellow flye, and the Moriſh flye in Iune, the Tawny flye part in May, and part of Iune, the Waſpe flye, and the ſhell flye in Iuly, and the clowdie darke flye in Auguſt.

The making of Flyes. Now for the making of theſe flyes, the cloudy darke flie is made of black wool, clipt from betweene a ſheeps eares, and whipt about with blacke ſilke, his wings of the under maile of the Mallard, & his head made blacke and ſutable fixed upon a fine peece of Cork, and folded ſo cunningly about the hooke, that nothing may bee perceived but the poynt and bearde onely. The ſhell-flye is made of fine greene floxe, and the wings of the winges of a Pew-glead: the Waſpe-flye

is made of blacke wooll, lapt about with yellow silke, and the wings of the downe of a Buzzard: the Tawny flye is made of tawny wooll, and the wings set one contrary to another, and made of the white downe of a Widgen: the Morish flye is made of fine flockes, shorne from a freese-grey russet, and the wings of a Drake: the bright yellow flye is made of yellow wooll, and his wings of a red Cockes yellow maine: the sad yellow flye is made of blacke wooll, with a twisted yellow silke, like a liste, whipt down on either side, and the wings of the wings of a Buzzard, set on with blacke threed: the blacke flye is made of blacke wooll, and lapt about with the herle of the peacocks taile, his wings with the browne feathers of a Mallard, and some of his blew feathers on his head: the red flie is made of red wooll, lapt about with blacke silke, and the wings of the maile of a Mallard, with some of the red feathers of a Capon, the stone flie is made of blacke wooll made yellow under the wings, and under the tayle with silke, and the wings of Drakes downe: the greater dun-flye is made of blacke wooll, and his wings of the dunne feathers of a Drakes tayle, the lesser dunne-flye is made of dunne wooll, and his wings of the maile of a Partridge.

Now for the shapes and proportions of these flyes, it is impossible to describe them without painting, therfore you shal take of these several flyes alive, and laying them before you, try how neere your Art can come unto nature by an equall shape and mixture of colours, & when you have made them, you may keepe them in close boxes uncrushed, and they will serve you many yeares.

Now for the preservation and keeping of your quick

Preſervation of baites.

baites (for longer then they are neate and ſweet they are not good:) you ſhall underſtand, that they muſt not be kept all together, but every kinde ſeverall by it ſelfe, and nouriſhed with ſuch comforts as it delighteth in, when it is at liberty, or with ſuch things as they breed in or upon when they are firſt taken. And firſt for the Red worme: when you take them, you ſhal put them in a bagge of red cloath, and chopping a handful of Fennel, mixe it with halfe ſo much freſh mould being blacke and fertile, and they will both live and ſcower therein: There be ſome Anglers which put wet Moſſe, both under and above them: Others there bee which put Parſly or ſweet Marioram unto them, but the former way is the beſt, ſo you obſerve every night to renew their Earth, or once in two dayes to refreſh them with a little new Oxe dung, & thus you may keep them two moneths without imperfection: for the great white Maggots, you ſhal mixe with them ſheeps tallow, or little bits of a beaſts Liver, the beſt way to ſcoure them, is to put them into a bagge of blanketting, with ſand, and hang them where they may have the ayre of the fire, or other warmth, for the ſpace of an houre or two. For Frogs and Graſhoppers, you ſhal keep them in wet moſſe, and long graſſe, moiſtned every night with Water, and when you angle with them you ſhal cut off their legges by the knees, and the Graſhoppers wings neere unto the body; for other wormes, as the Bobbe, Cadis worme, Canker, and ſuch like, you ſhall keepe them with the ſame things you find them upon: and or all live Flies you ſhal uſe them as you take them, only the Waſpe, the Horner, and Bumble Bee, which is without ſting, you ſhall firſt drye them a little in a warme oven after the bread is drawne, and then dippe

all

all their heads into sheepes blood, and then dry them againe, and so keepe them in a close boxe, and they will continue two or three moneths in all good perfection.

Now lastly, to speake of your made baites, which are Pastes, the most of them wil last the whole yeare, and as they be divers, so I will shew you how to compound every one of them in his true and perfect nature. First, to make Pastes that shall last the longest, you shal take beane-flower, and those parts of the Conies leg which is called the Almond of the Cony: or if it bee of a fat young Whelpe, or a Cat, it is as good: and to these put a like quantity of Virgin waxe, and Sheepe suet, and then beate them together in a Morter, until they bee made one body, then with a little clarified Hony temper it before the fire, and so make it up in round balls, and it will last all the yeare: and the use thereof is, when you Angle, to baite your hooke therewith, and not any Fish which swimmeth in fresh waters, but will greedily bite thereat. Of making Pastes.

There is also another Paste which is of equall quality and use with this, and will last as long, and that is to take the Kidney-Tallow of a Sheep, and as much young Cheese, and beat them in a morter til they be one body, then adde to them as much wheate-flower as will bring it to an exceeding stiffe paste, then kneade it before the fire, and allay the stiffenesse with life hony and so make it up into bals.

The use of this Paste is like the former. Take the blood of a Sheepe, and of Hony like quantity, and beate them together with a lumpe of fresh cheese, then with the fine grated crummes of white bread, worke them into a stiffe paste, & so roll it up in bals, and when you Angle do not baite your hook therewith, but now

and

and then caſt little pellets thereof into the Water, and it will inciſe the Fiſh to reſort unto you, and to bite with great greedineſſe.

There be others which take Bread crummes, and beat them in a morter with ripe Cherries (the ſtones being taken out) untill it come to a ſtiffe Paſte, and then knead it up into bals, and uſe it as you doe that which was laſt recited: it is moſt approved and very excellent for all ſorts of Fiſh in freſh waters.

Laſtly, if you take the oyle of the *Aſprey*, and *Coculus-India*, and *Aſperſidia* beaten, and mixt with as much life Hony, and then diſſolve them in the oyle of *Polypody*, and ſo keepe it in a cloſe glaſſe; then when you Angle, annoynt your baite but with this confection, and though the weather be never ſo unſeaſonabl, or the Fiſh never ſo ill diſpoſed to bite, yet be ſure you ſhal not loſe your Labour, but take, when all men elſe faile of their purpoſe, for the ſecret hath bin rarely approoved, and hitherto hath bin concealed with great ſecreſie. And thus much for baites and their uſes.

Chap. XIIII.

Of Angling for every ſeverall kind of Fiſh, according to their natures.

NOw to ſhew you how you ſhal angle moſt properly for every ſeveral Fiſh, with true Art, according to the nature of the Fiſh, I thinke it not amiſſe firſt to begin with the Goodgin, Roch, and Dace, which being Fiſhes of eager bit, moſt fooliſh, leaſt afrightful, and ſooneſt deceived, are the firſt fitteſt preyes for yong ſcholars, and ſuch as are but Learners in the Art of Angling, for the eaſineſſe of their gaining, wil not onely ſettle an

Of the Goodgin, Roch, and Dace.

unreſolved

unresolved minde, but give unto ignorance both comfort and incouragement.

If then you will Angle for any of these smal Fishes in great streames, it shall be meet to take a Boat, and finding the place of their haunt, which is commonly in sandy cleare waters, & where they run swiftest, there angle for them with your smallest hookes, well leaded, and smallest Lines, well Corkt. Your hooke would rather drag then be an inch from the bottome, and your best bait is the Red-worme, Cod-worme, Maggot, clotted blood of Sheepe cut in little bits, or else the white Spawne or brood of Waspes: and ever assoone as you see the Corke stirre, suddainly strike, for they will lye nibling at the baite; and finding the hooke, forsake it. If you Angle for them in small Brooks, you shal stand under Bridges, at the falls of Mils, behind Poplars, or Oziers, or any where, where the streame runneth deepe and swift: and ever note, that when your bit failes, you remoove your place, and seeke out a new standing, and withall forget not, ever when you Angle for any of these fish, to cast in some of your past before your hooke, for this wil make your sport much more abundant: and although the Dace, out of his owne nature, biteth high, and neere the top of the water, yet these baits & intisements, wil make him stoop, and be taken easily.

If you will Angle for the Carpe, you must have a strong Rod, and a strong Line, of at least seaven or nine haires, and either mixt with greene or watched silke: your Corke must be large, long, and smooth: your Leads smooth and close, and fixt neere the hook, and the hook of almost a three-penny compasse. He is very dainty to bite but at some especial hours, as very early in the morning, or very late at night, and therfore he must be very much Of the Carpe.

much entiſed with Paſt: his beſt bayts are the Moſſe-worme, the redde-worme, or the Menow, for he ſeldome refuſeth them. The Cadis-worme is good for him in *Iune*, and the Maggot, Blacke worme, or Graſſhopper, in *Iuly*, *Auguſt*, and *September*. If you make him paſte of ſoure Ale, white of eggs, and bread-crums, it will very much entiſe him: alſo I would ever with you before you fiſh for the Carpe, to caſt in a handfull of white Bread chippings into the Pond or River, for they will not onely intiſe him to your bayt, but alſo give you notice if you be neere his haunt, for you ſhall preſently heare him ſmacke about the water, and then if you miſſe him, either your fortune or skill is not good.

Of the Chub, Chevin, or Trout.

If you will Angle for the Chub, Chevin, or Trout, all your Inſtruments muſt be ſtrong and good: your rod darke and diſcoloured, your Line ſtrong but ſmall and ſhort, your hooke of a two penny compaſſe, and if you Angle with a Flye, then, nor Lead, nor Cork, nor Quill, if otherwiſe, then all of a handſome and ſutable proportion.

The beſt ſtanding to take them is in cloſe and concealed places, as behind Trees, Walles, or Arches of Bridges: their haunts are in cleare waters which runne upon Sand or Gravell, and they are in beſt ſeaſon from *March* till *Michaelmas*: if you Angle for them with dead Flyes, without Lead or Corke, I have ſhewed you in the former Chapter, the ſeverall flyes for each ſeveral month; but if you angle for them with other baits, then you muſt have both Corke and Lead, for he will bite neere the bottome, yet ſometimes you may angle for him with a ſmall Menow hanged at your hooke by the nether parts, without Corke or Lead,

and

and ſo draw the bayte upon the top of the water, and both with it, and with every flye, ſtrike rather before then after he byteth.

If you Angle for him at the ground in *March*, *April*, *May*, and *September*, the Menow is a good bayte, ſo is the ſtone-flie, Cadis-worme, Bobbe, red worme, ditch canker, young Frogges, the worme that breedeth on the Ozier-leafe and the dock-canker mixt together. In *Iune* Crickets and dore-flye, are good: In *July* the Graſhopper is good, ſo is the humble Bee, dryed Waſpes or dryed Hornets, or any of their yong brood in the Combes, in *Auguſt* flying Piſmires are good, ſo is the Colewort-worme, or the Maggot, & in *September* either Cherries, Mice before they have any haire, or the great Sow-worme.

I now will angle for the Eele, the beſt place is at Weares, Mill-ponds, bridges, hollow bankes, or any ſwift falling water: your Line ſtrong, and not above too ells in length, and very heavily plumde, a good round Hook, but no Corke, becauſe you muſt not ſtrike til the Eele plucke: neither muſt you by any meanes pul haſtily, but holding your Line ſtiffe, with labour & patience tire him, leaſt that tearing his chaps, you looſe him. The beſt bayte is the red worme, or little peeces of ſheepes guts. Of the Eele.

The Flounder and Sewant are greedy byters, yet very crafty: for they will nibble and ſucke at a bayt a good while before they ſwallow it: and if they perceive the hooke, they will fly from it: therefore to make them more haſty of the bayt, you muſt ever be moving your line, and ſeldome let it ly ſtill. They lye moſt commonly in the deepeſt place of the River where the water is ſtilleſt, and runneth with leaſt force: Of the Flounder & Sewant.

alſo

also they lye neare unto the banke, and delight most in the streame, which is brackish, and mixt with the salt water. Your Line must be strong, and wel plumbd neere to the hooke; and the best baite is the red Worm, and the young brood of Waspes.

Of the Grayling or Barbel.

The Barbel or Grayling, which some cal the Umber, are very subtile and crafty fishes; Therefore you must be very carefull that your baites be sweet and new, and when you angle for them, doe in all things as you doe for the Trout, for they bite aloft in the Summer, and at the bottome in the Winter. Your Lines must be extraordinarily strong, and your hookes of a three-penny Compasse, for they are fishes of waighty bodies, and when they are strooke, must have liberty to play, and tyre themselves, or else they will indanger the breaking of your Rod, and therefore your Line must be of the longest size.

Of the Breame

The best season to angle for the Breame, is from the latter end of *February* til *September*, he is a very lusty strong fish, and therfore your tooles must be good, the baites in which he most delighteth, is in wormes of all sorts, Butterflies, greene flyes, paste of bread crummes, or the brood of Waspes.

Of the Tench.

The Tench is a fish that ever loveth the bottome of Rivers, where the Ooze or mudde is thickest; and is most fit to be angled for in the height of Summer, for at other seasons he is not apt to bite, and at all times he is very dainty.

The baites in which he delighteth most, is pasts that are very sweet, and the browner the better, especially if it be made with the blood of a sheep. At the great red worme also he will bite, and so much the sooner if you mixe them with this paste: the Maggot and dried

waspe

waſpe he will ſeldome refuſe, chiefly being dipt in hony.

The Bleake, Ruffe, and Pearch are fiſhes which bite neither hye nor low, but for the moſt part in the midſt of the water, therefore your Line muſt be very lightly plumbd, and farre from the hooke. The baytes which moſt intice them, beſides the red worme, is the houſe-flye in the Summer, and the fat of Bacon in the winter: in *April* they will bite well at the Bobbe-worme or Maggot, and in all other ſeaſons they ſeldome refuſe any worme or canker. Your Line would be ſmall, and well armed from the hooke a handfull with ſmal wyer, for the teeth of the Pearch wil elſe gnaw it a ſunder. Of the Bleake, Ruffe, and Pearch.

The Pike is a Fiſh of great ſtrength and waight, in ſo much that you can hardly have a Line of haire to hold him, therefore your beſt Anglers uſe moſt commonly a Chaulke line, your Angle-rod alſo muſt have no ſmal top, but be all of one piece and bigneſſe, and the Line made exceeding faſt for ſlipping; Your hooke would be of the ſtrongeſt wyer, white or yellow, and made double, the points turning two contrary wayes, and then armed with ſtrong wyer a foote at leaſt: his beſt bait is a little ſmall Roch, Dace, or Menow, the hook being put in at the taile, and comming forth under the gils, and you muſt ſeldome or never let your baite lie ſtil in the water, but draw it up and down, as though the fiſh did moove in the water, and fledde from the Pike, for this will make him more eager and haſty to bite: and having bit, you muſt be ſure to tire him well before you take him up. Of the Pike.

The yellow live Frogge is alſo an excellent baite for the Pike, for you muſt underſtand, that they naturally

rally delight not in any dead or unmooving food.

Of Snickling the Pyke.

There be ſome which take a great deale of delight and pleaſure to Snickel or halter the pike, which is good when Pikes are broake out of Ponds or Rivers, and come into little ſmal Ditches or Rundels, as is oft to be ſeene in low contries. The way then to halter them is, firſt to find the Pike where he lyeth (which in the heat of the day, you may eaſily doe) then take your Chaulke-line, and making a large running nooze thereof, put it gently into the water, about two foot before the noſe of the Pike, then when you feele it touch the ground, cauſe one to goe behind the Pike, and with a poale to ſtirre him, then as he ſhutteh, meet him with your nooze, and ſo with a ſuddaine and quicke ierke throw him upon the Land. In this ſport you muſt be very ready, nimble, and quicke ſighted, for if you give him the leaſt time, he will eſcape you.

Of the Salmon.

Now laſtly, touching the angling for the Salmon, albe he is a fiſh which in truth is unfit for your Travaile, both becauſe he is too huge and cumberſome, as alſo in that he naturally delighteth to lie in the bottomes of great deepe Rivers, and as neere as may be in the bottomes of great deepe Rivers, and as neere as may bee in the middeſt of of the Channel, yet for as much as many men eſteeme that beſt which is got with moſt difficult, you ſhall vnderſtand that the baites in which he moſt delighteh are thoſe which ſerve for the Trout, as paſte or flyes in in the Summer, and Red wormes, Bob-wormes, or Cankers on the water-dockes after *Michaelmas*. And thus much for the *Arte* of *Angling*, and taking of each ſeveral ſort of fiſh which live in the freſh or brackiſh waters.

CHAP.

CHAP. XV.

Of taking Fish without Angle, and first of laying Hookes.

THe laying of hookes to take fish in the night, is most commonly used for the Pike, in great broad Waters or Meares, full of Sedge, Bulrushes, and other weedes, being very deepe, and muddy. Some do use to lay them for the Eele also, but you shall understand, that if you lay for the Pike, you must by no meanes let your hooke goe to the bottome, but with a floate keep it halfe a foot from the ground, but if you lay for Eeles, then let your Hookes be smaller, and sinke as low as they will.

Now for the manner of laying them, you shall baite the hookes as you did, when you Angled with Menow, Roch, Dace, Goodgen, or Millers-thumbe; and being made fast to strong packe-threed, fasten also that packethreed to a strong cord, which cord if it be three fadome in length, may hold sixteene or twenty hooks. Then fixing two strong stakes into the Earth, fasten the two endes of the bigge cord to the two stakes, and so let it lye from Sunne set untill Sunne rise, and you shall never faile, but some of your hookes will have taken: Onely obserue if you lay for Pikes, to lay in the middest of the water, neere unto the Sedge and Weedes: but if you lay for Eeles, lay very neere the Bankes, so there be no hollow or rotten trees growing thereon.

Now if you would with these layd hookes take any other sorts of fish, you shall lay such hookes as are fit for them: and before you depart away, cast into the

Water good ſtore of pellets of thoſe paſtes which are proper for the fiſhes you would take: as the paſte which is made of Branne, Sheepes blood, Garlicke, and Lees of Wine, will take all ſorts of ſmall fiſh: that paſte which is made of Sheepes Liver, Guts, Hogges blood, Bread crummes, and *Opoponax*, will bring Pearch, Tench, Carpe, or Breame unto your hookes, and that paſte which is onely made of Rue, Pine-apple kernels, Beane-meale and Hony, will bring the Salmon, the Trout, Chevan, or Barbell, unto your hookes at all times of the yeare.

Chap. XVI.

Of preſerving Fiſh from all ſorts of Devourers.

AMongſt al the ravenous Creatures which deſtroy Fiſh, there is none more greedy then the Otter, whoſe only food being thereon, hourely lyeth in waite to conſume them: Therefore though ſome Fiſher-men uſe to take him with a Weele made with a double tunnel, and called by the name of the Otter-weele, whoſe practiſe is ſo ordinary that every Fiſherman knowes the uſe of the ſame: Yet for a more ready and eaſie way to deſtroy him, you ſhall as neere as you can, find out his haunt, and the holes that are in the banke, and under the rootes of Trees where he lodgeth, and then take a great Eele, and ſlitting her backe above her navel, put in three or foure lumps of *Arſnicke*, and then ſtitch up the skinne againe, and ſo lay the Eele from the navel downward in the water, and from the navel upward out of the water: which when the Otter findes, it is his property to eate unto the navell and no further, which

which if he do, it is certaine that it is the laſt he wil eare.

Next to the Otter, the Herne is a great devourer of Fiſh, eſpecially the ſmall Frye, or that which lives in ſhallow places: therefore to deſtroy the Herne, you ſhal take a ſtrong Barbel hooke, and baite it, eyther with a Menow, or a peece of Dogges fleſh: colour your line greene, and lay it in a ſhallow place made faſt to ſome ſtake, where the Herne may wade to the knee to take it, and aſſoone as he hath ſwallowed it, he ſhall no more go from the place.

Now, for as much as this Fowle is a great deſtruction unto the young Spawne or Frie of Fiſh, it ſhall bee good for the preſervation thereof, to ſtake down into the bottomes of your Ponds good long Kids or Faggots of bruſh woods, mixt with the boughes of greene willowes, or oziers, in which the Fiſh caſting their ſpawne, it will be a defence for them, till they be able to fly into better ſafety.

Next to the Herne, the water Rat is a great deſtroyer of young Fiſh, eſpecially Trouts, Creviſſes, or any that lye in holes in the bankes: the beſt way to deſtroy them is by hunting them with water Dogges, which is a very good ſport: and I have ſeene twenty kild in an afternoone: but ſome doe uſe to take them with Hutches, or dead-fals, ſet in their haunts, but the former way is the better.

Next them the Sea-pye, and Sea-Meaw, is a great Devourer or Conſumer of Fiſh, and there is no better way to take them, then by ſetting Rods dreſt with water Lime, and ſet ſhoring by the edge of the water, one geſſe or row over another, in ſuch places as the Water is moſt ſhalloweſt, and upon ſome tufts of greene Weeds lay a fiſh for a bait under the Roddes, at which

he can no ſooner ſtrike but he is preſently taken.

Next theſe the Kings Fiſher (which is a ſmall greene Bird) is a great deſtroyer of Fiſh, and the way to take him is to marke his haunt where he commonly ſitteth, which is ever in ſome Buſh next the River: then ſet a little Cradle of limed ſtrawes about his ſeat, and they will quickly take him, for he ſeldome changeth, but ever ſitteth upon one bough.

Now to conclude, for the Cormorant, the Morehen, the bald coot, or the Oſpray, which deſtroy all kinde of fiſh whatſoever, there is no way better to kil them then by watching their haunts, to ſhoot at them with a Fowling piece, and in the breeding time of the yeare to deſtroy their neſts.

CHAP. XVII.

Of the ordering of Ponds, for the nouriſhment of Fiſh.

THere is nothing that killeth Fiſh or maketh them to proſper worſe then putrified & ſtinking water: neither is there any thing which corrupteth water ſooner then Weeds, Sedge, and ſuch filthineſſe being ſuffered to grow therein: Therefore it ſhall be good once in three yeares for to cleanſe your Ponds of all manner of Weeds and filth, which with a ſmall Boat and a ſharpe hooke you may eaſily do at the fall of the Leafe, for to cut them in the Spring doeth increaſe them. Now if your ponds be much ſubject to mudde, as for the moſt part thoſe in clay Countries are, then it ſhall be good once in ſeaven yeares to draine them, and lade them, and this would be done at the beginning of the Spring, and ſuch Fiſh as you are willing and meane to preſerve,

you

you ſhall put into ſmaller pits or ſtewes, and the other diſpoſe at your pleaſure: then cauſing the mudde to be troden with mens feet as you tread Morter, you ſhall ſee all the Eeles riſe aloft, which when you have taken alſo, then with Shovels and trough Spades caſt out all the mudde and filth (which is a ſingular compaſſe for Land) upon the Banke: then ſodde the bottome of the Pond, and the ſides with greene ſoddes, and fixe them hard into the earth with ſmal ſtakes of Sallow, and theſe ſides will nouriſh the Fiſh exceedingly.

This done, if your Pond have not any freſh Spring in it, then you ſhall lade the water backe againe into it, and then drawing your ſtewes, take out your ſtore of Fiſh, and put them againe into your Pond, obſerving ever that there be two parts ſpawners, and but a third melters.

Theſe pits and ſmall ſtewes, howſoever others write to the contrary, are better for feeding of Fiſh, then breeding: therefore you ſhall ever keep them with freſh water, and placing ſo one by another, that you may empty them at pleaſure, once in three monethes renew their bankes and bottomes with freſh ſods of the fruitfulleſt graſſe: alſo, you ſhall put into them good ſtore of ſmall Fry of Roch, Dace, Menowe, Loche, and Miller-thumbes: for the bigger Fiſh will feed thereon: alſo the inward Garbadge and blood of Sheepe, calves, Hogges, and ſuch like, which will fat Fiſh ſuddainly, for you muſt know that as the Fiſh in Rivers have, by vertue of the current, ever ſomething brought to them to feed on, ſo the Fiſh which is impriſoned in ponds and wants that helpe, muſt either be relieved, or elſe periſh, and there is nothing better to feed them with, then that before ſpoken, or elſe Brewers graines, chippings,

Curds, and any corne whatſoever, throwne into the Ponds morning and evening.

Chap. XVIII.

Of the beſt Water-Lime.

THe beſt water Lime that can be made, and which will moſt ſurely hold within the water, is to take a pound of the ſtrongeſt Bird lime, and waſh it in nine running waters, untill there be no hardneſſe in it, and then beat out the water cleane, and dry it: which done, put it into an earthen pot, and adde thereto as much Capons greaſe as will make it runne, two ſpoonefull of ſtrong Vinegar, a very little Lampe-oyle, and Venice Turpentine, and boile them all gently together upon a ſoft fire, ſtirring it continually. Then take it from the fire, and let it coole, then at any time when you meane to uſe it, warme it, and then annoynt either your Rods, Buſhes, Strawes, or Lines, and no water will take away the ſtrength.

Of the fighting Cocke.

Chap. XIX.

Of the Choyce, Ordering, Breeding, and Dyeting of the fighting-Cocke for battell.

SInce there is no pleasure more Noble, Delightsome, or void of couzenage and deceite then this pleasure of cocking is: and since many of the best wisedomes of our Nation have beene pleased to participate with the delights therein, I thinke it not amisse, as well for the instruction of those which are unexperienced, as fortifying of them which have some Knowledge therein, to declare in a few lines the *Election*, *Breeding*, and *Secrets* of dyeting the fighting Cocke; which having bin hitherto concealed and unwritten of, is (for our Pleasure sake) as worthy a general knowledge as any delight whatsoever.

The choyce of the Cocke for Battle.

To speake then first of the choise of the fighting-Cocke, you shal understand that the best Characters you can observe in him, is the *Shape*, *Colour*, *Courage*, and *sharpe-heele*: for his shape the middle & indifferent size

is ever accounted beſt, becauſe they be ever moſt matchable, ſtrong, nimble, and ready for your pleaſure, whereas the huge Cocke (which we cal the turnſ-Cocke) is ever hard to find his equall, beſides he is lubberly, and affording ſmall pleaſure in his battle: and ſo the exceeding little Cocke is as hard to match, and is commonly weake and tedious in his manner of fighting. He would be of a proud and upright ſhape, with a ſmall head, like unto a Spar-hawke, a quicke large eye, & a ſtrong beake, crookt and bigge at the ſetting on, and in colour futable to the plume of his Feathers, as blacke, yellow, or reddiſh. The beame of his legge would be very ſtrong, and according to his Plume, blew, grey or yellow: his ſpurres long, rough, and ſharpe, a little bending and looking inward.

For his colour, the grey pyle, the yellow pyle, or the red with the blacke breſt, is eſteemed the beſt: the pide is not ſo good, and the white and dunne are the worſt. If he be red about the head, like skarlet, it is a ſigne of luſt, ſtrength, and courage, but if he be pale, it is a ſigne of ſickneſſe and faintneſſe.

For his courage, you ſhall obſerve it in his walke, by his treading, and the pride of his going, and in his pen, by his oft crowing. For the ſharpneſſe of his heele, or as Cocke-maſters call it, the narrow heele, it is onely ſeene in his fighting, for that cocke is ſayd to be ſharpe heeld, or narrow heeld, which every time he riſeth hitteth, & draweth blood of his adverſary, guilding (as they tearme it) his ſpurres in blood, and threatning at every blow an end of the battle.

And theſe cockes are ſurely of great eſtimation, for the beſt cocke-maiſters are of opinion, that a ſharpe heeld cocke, though hee be a little falſe, is much bet-

ter then the trueſt cocke which hath a dull heele, and hitteth ſeldome, for though the one fight long, yet hee ſeldome wounds, and the other though he will not indure the uttermoſt hewing, yet he makes a very ſuddaine and quicke diſpatch of his buſineſſe, for every blow puts his adverſary in danger

But that cocke which is both aſſuredly hard, and alſo very ſharpe heeld, he is to be eſteemed, and is of the moſt account above all other, and therefore in your generall Election chuſe him which is of a ſtrong ſhape, good colour, true valour, and of a moſt ſharpe & ready heele.

Now for the breeding of theſe cockes for the battle, it is much different from thoſe of the dunghill, for they are like Birds of prey, in which the female is ever to be preferred & eſteemed before the Male, and ſo in the breed of theſe Birds, you muſt be ſure that your Henne be right, that is to ſay, ſhe muſt be of a right plume, as grey, griſſell, ſpeckt, or yellowiſh, blacke or brown is not amiſſe: ſhe muſt be kindly unto her yong, of large body, well poaked behind for large Egges, and well tufted on the crowne, which ſhewes courage: if ſhee have weapons ſhe is better, but for her valour it muſt be excellent, for if there be any ſpot of cowardiſe in her, the chickens cannot be true. The breeding of the battle-Cocke.

And it is a note amongſt the beſt breeders, that the perfect Henne from a Dunghil-cocke, will bring a good chicken, but the beſt cock from a Dunghill Henne can never get a good Bird: and I have knowne in mine own Experience, that the two Famouſeſt Cockes that ever fought in theſe dayes, the one called *Noble*, the other *Griſſell*, begot on many ill Hennes very badde cockes, but the moſt famous Henne *Blake*, never brought forth

forth ill Bird, how bad ſoever her Cocke were.

Having then unto perfect Cockes got perfect Hennes, (for that is the beſt breeding) you ſhall know that the beſt ſeaſon of the yeere to breed in, is from the increaſe of the Moone in *February*, to the increaſe of the Moone in *March*, for one *March* Bird is ever better worth then three at any other ſeaſon. You ſhall place her Penne in which ſhee ſitteth, to ſtand warme, and to make her bedde of ſoft and ſweet ſtraw, for they be much tenderer then the Dunghils are, neither ſhall you ſuffer any other Fowle to come in her view where ſhee ſits, for it will move her to diſpleaſure, and make her to endanger her Egges.

You ſhall alſo obſerve in her ſitting, whether ſhe be buſie to turne her Egges (which is a good ſigne in a Henne) and if ſhee be ſlacke, you ſhall helpe her at ſuch times as ſhee riſeth from her neſt, and ever be ſure that when ſhe commeth from her neſt, to have meate and water ready for her, leaſt being forced to ſeeke her foode, ſhe ſuffer her Egges to coole too much: alſo you ſhall have Sand, Gravell, and fine ſifted aſhes in the roome where ſhee ſitteth, in which ſhe may bathe and trimme herſelfe, at her pleaſure.

After one and twenty dayes is the time of their hatching, and if when they are new hatched, ſhe doe neglect to cover and keepe the firſt warme till the reſt bee diſcloſed, you ſhall obſerve her, and take thoſe that are firſt opened, and lapping them in warme Wooll, lay them within the ayre of the fire till the reſt bee hatcht, and then put them all under her, and keeping both the Henne and them exceeding warme, for they be ſo tender that the leaſt cold will kill them, and ſuffer neither

the

them nor the Henne to goe abroad into the ayre till they be a month old: and let them have ſtore of food, as Oate-meale, Cheeſe parings, Chilter-wheat, and ſuch like, & a large roome to walk in, the floore being board, for the earth floore is too moiſt, and the plaſter-floore too cold.

After they are a moneth old, you ſhall let them walke in ſome graſſe court, or greene place, where they may have ſtore of wormes, but by all meanes be ſure there be no ſtinking puddles of water in it, no ſinkes, nor filthy Channells, for it is the greateſt poiſon that can bee to Birds of this nature, and breedeth thoſe diſeaſes which are moſt mortall: if every morning before they goe forth, you perfume them and their roome with Roſemary, or Peny-royall burnt, it is a great preſervation againſt all thoſe infirmities, or to choppe Leeke blades amongſt their meate is very good alſo.

In this ſort you ſhal nouriſh them til you may diſtinguiſh the Cocke-Chicken from the Henne, and then ſeeing their Combes or Wattles but appeare, you ſhall cut them away, and ſo annoint the ſore with ſweet Butter till it be whole. This will make them have fine, ſmall, ſlender, and ſmooth heads, whereas to ſuffer the Combe to grow to his bigneſſe, and then cut it away, it wil make him have a gouty thicke head, with great lumpes: neither is the fluxe of bloud wholeſome, for the leaſt loſſe of blood in a feathered fowle, is exceeding mortall, and very dangerous.

You ſhall ſuffer your Cocke-Chickens to goe together with their Hennes till they beginne to fight, and pecke one at another, but then you ſhall ſeparate them,

and

and diſperſe them into ſeverall walkes, and that walke is the beſt for a fighting Cocke which is farthest from reſort, as at Winde-milles or Water-milles, Grange-houſes, and ſuch like, where he may live with his Hens without the offence or company of other Cocks. Lodges in Parkes are alſo good, and ſo are Conie-warrens, onely they are a little too much haunted with vermine, and that is dangerous, let the feeding place for your Cockes bee upon ſoft dry ground, or upon boardes, for to feede upon paved earth, or on Plaſter floores, will make their beakes weake, blunt, and not apt to hold faſt. Any white Corne is good foode for a Cocke in his walke, and ſo are toſtes or cruſtes of breade ſteeped in drinke, or mans vrine, for it will both ſcowre and coole them inwardly.

If your Chickens beginne to crow (not being five moneths old) cleare & lowd, or at unſeaſonable times, doe not eſteeme them, for it is an apparant ſigne of cowardiſe and falſhood: for the true Cocke is very long before he get his voice, and when he hath it, he obſerves his houres with the beſt iudgement. Vnto your fighting Cocke three Hennes are ſufficient, five are with the moſt, for they are ſo hotte of nature and will tread ſo much, that they ſoone conſume their naturall ſtrength.

A Cocke would not be put to the battell before hee be two yeeres old, at which time he is perfect and compleate in every member, for to ſuffer him to fight when his ſpurres are but warts, you may well know his courage, but never his goodneſſe.

You muſt alſo have an eſpeciall care to the Perch whereon your Cocke ſitteth when hee rouſteth, for

for if it be too small in the grype, or crooked, or so ill placed that he cannot sit but he must straddle with his legges, any of these faults will make him uneven heeld, and what soever he was naturally, yet by this accident, he will never be good striker, for the making of the perch, either maketh or marreth the Cocke, therefore to prevent this fault, the best way is to have in your roust a row of little pearches, not above seaven or eight inches in length, and not a foot from the ground, so that your Cocke may with ease goe up to them, and being set, must of force have his legges stand neere together, it is a rule that he which is a close sitter, is ever a narrow striker.

Let the foot stoole of the pearch be round and smooth, and about the bigneſſe of a mans arme. Yet for your better knowledge, because words cannot so well expresse these quantities, it shall not be amisse for you to goe to some famous Cocke-masters house and view the pearches which are within his feeding pennes, and according to those propottions frame your owne, for the pearch is the making and spoyling of any Cocke whatsoever.

Againe, you must be carefull, that when your Cocke doth leape from his pearch, that the ground be soft whereon he lighteth, for if it be hard or rough, it will make your Cocke grow gouty, and put forth knots upon his feete.

Now lastly, for the dyeting and ordering of a Cocke for a battell, which is a secret, yet never divulged, but kept close in the breasts of some few, and for as much as in it onely consisteth all the ground and substance of the pleasure, the best Cocke undieted, not being able to encounter with the worst Cocke that is dyeted: you

The dyeting of Cockes for the battell.

you shall understand, that the time to take up your Cockes is at the latter end of *August* (for from that time till the latter end of *May*, Cocking is in request) and having viewed them well, and seen that they are sound, hard feathered, and full summed, you shall put them into severall pens, the models whereof you may behold in every Cock masters or Inne-kepeers house, having a mooving Pearch in it, to set at which corner of the pen you please.

Of taking up Cockes.

Of the Cocke-pen.

This pen would be made of very close boards, well ioyned together all but the forefront, which would be made open, like a grate, one Barre two inches distant from another, and before the grate two large Troughes of soft wood, one for his meate, the other for his water. The doore of the grate would be made to lift up and downe, of such largenesse that you may with ease put your Cocke in and out, and dayly cleanse the pen to keepe it sweet and wholesome.

The pen would be at least three foot in hight, and two foot in square every way, and many of them may bee ioyned in one front, according to the bignesse of the roome, in which they are built: and also one above another, onely with over shadowing boards, so that one Cock may not see another.

Of his dyet.

When your Cocke, as aforesaid, is put up into his Pen, you shall for three or four dayes feed him onely with old Manchet, the crust pared away, and cut into little square bits, and you shall give him to the quantity of a good handfull at a time, and you shall feed him three times in the day, that is to say, at Sun rise, at high noon, and at Sun set. You shall ever let him have before him the finest, coldest, and sweetest Spring-Water that you can get.

After

After he hath beene thus fedde foure dayes, and his Corne, Wormes, Gravell, and other courſe feeding him in the Morning, take him out of the Pen, and another Cocke alſo, and putting a payre of Hots upon each of their heeles, which Hots are ſoft bumbaſted roules of Leather, covering their Spurres, ſo that they cannot hurt or bruiſe one another, and ſo ſetting them downe one the greene graſſe, let them fight and buffet one another a good ſpace, as long as in their teaching they doe not wound or draw blood one upon another: and this is called the ſparring of Cocks: it heateth and chafeth their bodies, and it breaketh the fat and glut, which is within them, and maketh it apt to cleanſe and come away. Of Sparring of Cockes.

After your Cockes have ſparred ſufficiently, and that you ſee them pant and grow weary, you ſhall take them up, and taking off their Hots, you muſt have deep ſtraw baskets made for the purpoſe, with ſweete ſoft ſtraw to the middle, and then putting in your Cocke cover him with ſweete ſtraw up to the top, and then lay on the lidde cloſe, and there let your Cocke ſtove and ſweate till the Evening.

But yet before you put him into the ſtove, you ſhall take Butter and Roſemary finely chopt, and white Sugar-candy, all mixt together, and give him a lumpe thereof, as much as your thumbe, and then let him ſweat, for the nature of this ſcowring is to bring away his greaſe, and to breed breath and ſtrength. You may in time of neceſſity for want of theſe ſtraw baskets ſtow your Cocke in a Cocke-bagge, by laying ſtraw both under and above him, but it is not ſo good, becauſe the Ayre hath more power to paſſe thorow it.

After

Of the best dyet bread.

After foure of the clocke in the Evening, you may take your Cocke out of the ſtove, and licking his head and eyes all over with your tongue, put him into his Penne, and taking a good handfull of bread, ſmall cut, put it into his trough, and then piſſing into the trough, alſo give it him to eate, ſo as he may take his bread out of the warme urine, for this will make his ſcouring worke, and cleanſe both his head and body wonderfully.

Now you ſhall underſtand, that the bread which you ſhall give him at this time, and at all other times during his dyeting ſhall not be Maunchet, but a ſpeciall bread made for the purpoſe, in this manner: you ſhall take of wheat-meale halfe a Pecke, and of fine oate-meale-flower as much, and mixing them together knead them into a ſtiffe paſte, with Ale, the white of a dozen Egges, and halfe a pound of Butter, and having wrought the dowe exceeding well, make it into broad thinne cakes, and being three or foure dayes old, and the bliſterings of the outſide cut away, cut it into little ſquare bits, and give it the Cocke.

There be ſome others that in this Bread will mixe Lycoras, Annis-ſeedes, and other hot Spices, and will alſo in the Cocke water ſteepe ſlices of Lycoras, but it is not commendable, for it is both unnaturall and unwholeſome, and maketh a Cocke ſo hot at the heart, that when he comes to the latter end of a battel, he is ſuffocated and overcome with his owne heat: therefore I adviſe all men of iudgement, to take that for the beſt dyet which is moſt naturall, and leaſt contrary unto the Fowles ordinary feeding.

But to returne to my former Diſcourſe, after you have fedde your Cocke thus for all night, you ſhall the next

next day let him reſt, and onely give him his ordinary feedings of Bread and Water, then the next day (which is the ſecond day after his ſparing) you ſhall take him into a faire even greene Cloſe, and there ſetting him downe having ſome Dung-hill Cocke in your armes, you ſhall ſhew it him, and ſo runne from him, and entice him to follow you, and ſo chaſe up and downe halfe an houre at the leaſt, ſuffering him now and then to have a ſtroke at the Dung-hill Cocke. And when you ſee that he is well heated, and panteth, you ſhall take him up, and beare him into your Cocke-houſe, and there firſt give him this ſcouring: Take of Butter, which hath no ſa't, halfe a pound, and beare it in a Morter with the leaves of Herbe of Grace, Iſop, and Roſemary, till the Herbes cannot be perceived, and that the Butter is brought to a greene ſalve, and of this give the Cocke a roule or two, as bigge as your thumbe, and then ſtove him in the basket, as is before ſaid, till evening, and then feed as was formerly declared.

The next day you ſhall let him reſt and feede, and the next day after you ſhall ſparre him againe, and thus every other day for the firſt fortnight, you ſhall either ſparre or chaſe your Cocke, which are the moſt naturalleſt and kindlieſt heates that you can give him, and after every heate you ſhall give him a ſcouring: for this will breake and cleanſe from him all greaſe, glut, and filthineſſe, which lying in his body, makes him purſie, faint, and not able to ſtand out the latter end of a battell.

Having fed your Cocke thus, the firſt fortnight, the ſecond fortnight you ſhall alſo feede him in the ſame manner, and with the ſame food; but you ſhall

a weeke not sparre him, or give him heats above twice in a weeke at the most, in so much that thrice or foure times in the fortnight will be sufficient, and each time you shall stove and scoure him, according to the nature of his heates, that is to say, if you heate him much, you shall stove him long, and give him of your scouring the greater quantity: if you finde that hee is in good breath, and needeth but sleight heats, then you shall stove him the lesse while, and give him the lesse of the scouring.

Now to the third fortnight, which maketh up the sixe weekes compleate, (being a time sufficient to prepare a Cocke for his battell) you shall feede him as foresaid, but you shall not sparre him at all, for feare of making his head tender or sore, neither give him any violent exercise, but onely twice or thrice in the fortnight, moderately, let him run and chase up and downe, to maintaine his wind, and now and then cuffe a Cocke which you shall hold to him in your hands, which done, you shall give him his scouring well roll'd in the powder of Sugar-Candy, white or browne, but browne is the better, for the Cocke then being come to perfect breath and having no filth in his body for the scouring to worke on, it will worke and cause operation upon the vitall parts, and make the Cocke sicke, which the Sugar-Candy will prevent, and strengthen nature against the medicine.

After the end of sixe weekes feeding, finding your Cocke in lust and breath, you may fight him at your pleasure, observing that he have at least three daies rest before hee fight, and well emptied of his meat before you bring him into the Pit.

Now

Now, when you bring him into the Pit to fight, you must have an especiall care to the matching of him, for in that Art consisteth the greatest glory of the Cockes master; for what availeth it to feede never so well, if in the matching you give that advantage which overthroweth all your former labour? Therefore in your matching, there are two things to be considered: that is, the length of Cockes, and the strength of Cockes: for, if your adversary Cocke be too long, yours shall hardly catch his head, and then he can neither indanger eye or life; and if he be the stronger, he will over beare your Cocke, and not suffer him to rise, and strike with any advantage; therefore for the knowledge of these two rules, though experience be the best Tutor, yet the first, which is length, you shall judge by your eye, when you gripe the Cocke about the waste, and make him shut out his legges, in which posture you shall see the utmost of his height, and so compare them in your judgement. Now for his strength, which is knowne by the thicknesse of his body, for that Cocke is ever held the strongest which is largest in the garth, you shall know it by the measure of his hands, griping the Cocke about from the points of your great fingers, to the joynts of your thumbes, and either of these advantages by no meanes give to your adversary, but if you doubt losse in the one, yet be sure to gaine in the other; for the weake long Cocke will rise at more ease, and the short strong Cocke will give the surer blow, so that because all Cockes are not cast into a mould, there may be a reconciliation of the advantages, yet by all meanes give as little as you can. The matching of Cockes.

When your Cocke is equally match'd, you shall thus

Of preparing Cocks to the fight.

prepare him to the fight, first with a paire of fine Cocke sheares you shall cut all his Maine off, close unto his necke, even from his head unto the setting on of his shoulders, then you shall clip off all the feathers from his taile close unto his Rumpe: where the more soever that you see his Rumpe, in the better estate of body the Cocke is. Then you shall take his wings, and spreading them forth by the length of the first Feather of his wing, clip the rest sloope-wise with sharpe points, that in his rising hee may therewith indanger the eyes of his adversary: then with a sharpe knife you shall scrape smooth, and sharpen his Beake, then shall you smooth and sharpen his spurs.

The ordring of Cockes after battell, and the curing them.

Lastly, you shall see that there be no feathers about the crowne of his head for his foe to take hold on, and then with your spettle moistning his head all over, turne him into the Pit to prove his Fortune? When the battell is ended, the first thing you doe, you shall search his wounds, and as many as you can finde, you shall with your mouth sucke the blood out of them, then wash them very well with warme Urine, to keepe them from ranckling, and then presently give him a roule or two of your best scouring, and so stove him up as hot as you can, both with sweete straw and blankering in a close Basket for all that night, then in the morning take him forth, and if his head be swish (well'd, you shall sucke his wounds againe, and bathe them with warme Urine, then having in a fine bagge the powder of the Herb *Robert*, well dryed, and finely seirst, powre all the sore places therewith, and then give the Cocke a good handfull of Bread to eate out of warme Urine, and so put him into the stove againe, in the same

manner as before mentioned, and by no meanes ſuffer him feele the aire, untill all the ſwelling be gone, but twice a day ſucke his wounds, dreſſe him, and feed him, as is aforeſaid.

But if hee have received any hurt, or blemiſh in his eye, then you ſhall take a leafe or two of right ground Ivie, not that which runneth along the ground, and is of the ignorant ſo called, but that which growes in little tufts in the bottome of hedges, and is a little rough leafe, and having chewed it very well in your mouth, and ſuck'd out the juyce, ſpit it into the eye of the Cocke, and it will not onely cure it of any wound, or any blow in the eye, where the ſight is not pierced, but alſo defend it from the breeding of Filmes, Hawes, Warts, or any ſuch other infirmities, which quite deſtroy the ſight: Obſerving that you doe not ceaſe to dreſſe the eye therewith ſo long as you ſhall perceive any blemiſh therein.

Now if your Cocke have in his fight veined himſelfe either by narrow ſtriking, or other croſſe blow, you ſhall find out the [illegible] and carefully bind thereunto the fine ſoft downe [illegible] it will both ſtanch it and cure it.

For any other caſualty, infirmity or ſickneſſe which ſhall happen unto Cocke [illegible]ke in the former Booke called *Cheape and Good*, [illegible] you ſhall finde them ſet downe at large, onely I will give you this one ſmall remembrance; that after you have put forth your wounded Cockes to their walkes, and come to viſite them a mone h or two after, if you finde about their heads any ſwelling bunches, hard, and blackiſh at one end, you ſhall know that in ſuch bunches are unſound

chores: Therefore presently with your knife you shall open the same, and crush out the chores with your thumbs, then with your mouth sucke out all the corruption, and then fill the holes full of fresh Butter, and it will cure them. And thus much for the nature of the Cocke, and how to keepe him for his best use.

The end of the first Booke.

[illegible] Thus much for the ordering your Mares, your Foales, your Stone, and vnruly Colts: now I will shew you how you shall know when your Mare is with Foale, and when she casteth her Foale, and then fill the holes full of fresh Butter, and it will cure them. And thus much for the ordering of the Mare or the Cocke, and how to keepe him for his better [illegible]

The end of the first Booke.

THE ENGLISH HUSWIFE

Containing the inward and outward Vertues which ought to be in a compleat Woman.

As her skill in Physick, Surgery, Cookery, Extraction of Oyles, Banqueting stuffe, Ordering of Wines, Conceits of all sorts of Wines, Conceits for Perfumes, Orders of Shooting, Hunting, Fishing, Fowling, and Dying: the knowledge of Dayries, Office of Malting, Oates, their severall kinds and Faculty, of Brewing, Baking, and all other things belonging to a Farme or Houshold.

Necessary for all Men to reade, but principally for the Female Sex, as well Mistresses as Servants, for the generall benefit of this Kingdom.

LONDON,

Printed by *Iohn Beale* for *Nath. Butter*, at the Golden Vnicorne in Paternoster-row. 1615.

THE ENGLISH HOVSE-WIFE,

Containing the inward and outward Vertues which ought to be in a compleate Woman.

As her skill in Phyſick, Surgery, Cookery, Extraction of Oyles, Banquetting ſtuffe, Ordering of great Feaſts, Preſerving of all ſorts of Wines, Conceited Secrets, Diſtilations, Perfumes, ordering of Wooll, Hempe, Flax, making Cloth, and Dying: the knowledge of Dayries, Office of Malting, of Oates, their excellent uſes in a Family, of Brewing, Baking, and all other things belonging to an Houſhold.

A Worke generally approved, and now the fifth time much augmented, purged and made moſt profitable and neceſſary for all men, and the generall good of this Kingdome.

By G. M.

LONDON,
Printed by *Anne Griffin* for *Iohn Harriſon*, at the Golden Vnicorne in Pater-noſter-row. 1637.

THE ENGLISH HOUSE-WIFE

Containing the inward and outward Vertues which ought to be in a compleate Woman.

As her skill in Physick, Surgery, Cookery, Extraction of Oyles, Banqueting stuffe, Ordering of great Feasts, Preserving of all sorts of Wines, Conceited Sewets, Distillations, Perfumes, ordaining of Wooll, Hemp, Flax, Making Cloth, and Dying: the knowledge of Dayries, Office of Malting, of Ovens, their excellent use in a Family, &c. Brewing, Baking, and all other things belonging to an Houshold.

A Work generally approved, and now the fifth time much augmented, purged and made most perfect and needfull for all men, and the generall good of this Kingdome.

BRITISH MUSEUM

LONDON,
Printed by Anne Griffin for John Harrison, at the Golden Unicorne in Pater-noster-row. 1637.

To the right Honorable and moſt excellent Lady, FRANCIS, Counteſſe Dowager of *Exeter*.

HOwſoever (Right Honorable and moſt vertuous Lady) this booke may come to your Noble Goodneſſe cloathed in an old Name or garment, yet doubtleſſe (excellent Madam) it is full of many new vertues which will ever admire and ſerve you; and though it can adde nothing to your owne rare and unparalleld knowledge, yet may it to thoſe Noble good ones (which will endeavour any ſmall ſparke of your imitation) bring ſuch a light, as may make them ſhine with a great deale of charity. I doe not aſſume to my ſelfe (though I am not altogether ignorant in ability to judge of theſe things) the full intention and ſcope of this whole worke: for it is true (great Lady) that much of it was a MANUſCRIPT which many yeeres agon belonged to an Honorable Counteſſe, one of the greateſt Glories of our King-

dome, and were the opinions of the greatest Physitians which then lived; which being now approved by one not inferiour to any of that Profession, I was the rather emboldned to send it to your blessed hand, knowing you to be a Mistresse so full of Honorable piety and goodnesse, that although this imperfit offer may come unto you weake and disable, yet your Noble vertue will support it, and make it so strong in the world, that I doubt not but it shall doe service to all those which will serve you, whilest my selfe and my poore prayers shall to my last gaspe labour to attend you.

The true admirer of your
Noble Vertues,

GERVASE MARKHAM

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The approoved Booke, Called the *English Housewife*,

Containing all the Vertuous knowledges and Actions both of mind and body, which ought to be in any compleate Housewife, of what degree or calling soever.

Booke II.

Chap. I.

Of the inward vertues of the mind, which ought to be in every Housewife. And first of her generall Knowledge both in Physicke and Surgery, with plaine approved medicines for health of the Household, also the extraction of excellent Oyles fit for those purposes.

HAving already in a summary briefeneſſe paſſed through thoſe outward parts of Husbandry which belong unto the perfect Husbandman, who is the Father and Maiſter of the family, and whoſe office and imployments are ever for the moſt part abroad, or removed from the house, as in the field or yard: It is now meete that wee deſcend in as orderly a method as we can, to the office

our English Huſwife, who is the mother & miſtris of the family, and hath her moſt generall imployments within the houſe; where from the generall example of her vertues, and the moſt approved skill of her knowledges, thoſe of her family may both learne to ſerve God and ſuſtaine man in that godly and profitable ſort which is required of every true Chriſtian.

A Houſ wife muſt be religious.

Firſt then to ſpeake of the inward vertues of her mind; ſhe ought, above all things, to be of an upright and ſincere religion, and in the ſame both zealous and conſtant; giving by her example and incitement a ſpurre unto all her family to perſue the ſame ſteps, and to utter forth by the inſtruction of her life, thoſe vertuous fruits of good living, which ſhall be pleaſing both to God and his creatures; I doe not meane that herein ſhe ſhould utter forth that violence of ſpirit which many of our (vainely accounted pure) women doe, drawing a contempt upon the ordinary Miniſtery, & thinking nothing lawfull but the fantaſies of their owne inventions, uſurping to themſelves a power of preaching & interpreting the holy Word, to which onely they ought to be but hearers & beleevers, or at the moſt but modeſt perſwaders, this is not the office eyther of a good Houſ-wife or good woman. But let our Engliſh Houſ-wife be a godly, conſtant, and religious woman, learning from the worthy Preacher and her husband, thoſe good examples which ſhe ſhall with all carefull diligence ſee exerciſed amongſt her ſervants.

In which practiſe of hers, what particular rules are to be obſerved, I leave her to learne of them who are profeſſed Divines, and have purpoſely written of this argument; onely thus much will I ſay, which each ones experience will teach him to be true, that the more care ful.

full the maſter and miſtris are to bring up their ſervants in the daily exercises of Religion toward God, the more faithfull they ſhall finde them in all their buſineſſes towards men, and procure Gods favour the more plentifully on all the houſhold: and therefore a ſmall time morning and evening beſtowed in prayers, and other exercises of Religion, will prove no loſt time at the weekes end.

Next unto this ſanctity and holineſſe of life, it is meet that our Engliſh Houſ-wife be a woman of great modeſty and temperance, as well inwardly, as outwardly; inwardly, as in her behaviour and cariage towards her husband, wherein ſhe ſhall ſhunne all violence of rage, paſſion and humour, coveting leſſe to direct, then to be directed, appearing ever unto him pleaſant, amiable, and delightfull. And though occaſion, miſhaps, or the miſgovernement of his will, may induce her to contrary thoughts, yet vertuouſly to ſuppreſſe them, and with a milde ſufferance rather to call him home from his errors then with the ſtrength of anger to abate the leaſt ſparke of his evill, calling in her mind that evill and uncomely language is deformed though uttered even to ſervants, but moſt monſtrous and ugly when it appeares before the preſence of a husband: outwardly, as in her apparell and diet, both which ſhe ſhall proportion according to the competency of her husbands ſtate and calling, making her circle rather ſtrait, then large, for it is a rule, if we extend to the uttermoſt, we take away increaſe, if we goe a hayre breadth beyond, we enter into conſumption: but if we preſerve any part, we build ſtrong forts againſt the adverſaries of fortune, provided that ſuch preſervation be honeſt and conſcionable: for as laviſh prodigality is bruiſh, ſo miſerable couetouſneſſe is

Shee muſt be temperate.

Of her Garments.

hellish. Let therefore the Housewifes garments be comely and strong, made aswell to preserve the health, as adorne the person, altogether without toyish garnishes, or the glosse of light colours, and as far from the vanity of new fantasticke fashions, as neere to the comely imitations of modest Matrons: Let her dyet bee wholsome and cleanly, prepared at due houres, and Cookt with

Of her dyet.

care and diligence, let it be rather to satisfie nature than our affections, and apter to kill hunger than revive new appetites, let it proceede more from the provision of her owne yard, than the furniture of the Markets; and let it be rather esteeme for the familiar acquaintance she hath with it, than for the strangenesse and rariety it bringeth from other Countries.

Her generall Vertues.

To conclude, our English Housewife must be of chast thought, stout courage, patient, untyred, watchfull, diligent, witty, pleasant, constant in friendship, full of good Neighbour-hood, wise in discourse, but not frequent therein, sharpe and quicke of speech, but not bitter or talkative, secret in affaires, comfortable in her counsels, and generally skilfull in the worthy knowledges which doe belong to her Vocation, of all, or most whereof I now in the ensuing discourse, intend to speake more largely.

Of her vertues in Physicke.

To begin then with one of the most principall vertues which doth belong to our English Housewife, you shall understand, that sith the preservation and care of the family touching their health and soundnesse of body consisteth most in her diligence: it is meet that she have a physicall kind of knowledge, how to administer many wholesome receits or medicines for the good of their healths, as well to prevent the first occasion of sicknesse, is to take away the effects and evill of the same, when

it hath made ſeaſure on the body. Indeed we muſt confeſſe that the depth and ſecrets of this moſt excellent Art of Phyſicke, is farre beyond the capacity of the moſt skilfull woman, as lodging onely in the breſt of learned Profeſſours, yet that our Houſe-wife may from them receive ſome ordinary rules and medicines which may availe for the benefit of her Family, is (in our common experience) no derogation at all to that worthy Art. Neither doe I intend here to loade her minde with all the Symptomes, accidents, and effects which go before or after every ſickneſſe, as though I would have her to aſſume the name of a Practitioner, but onely relate unto her ſome approved medicines, and old doctrines which have beene gathered together, by two excellent and famous Phiſitians, and in a Manuſcript given to a great worthy Counteſſe of this Land, for farre bee it from me, to attribute this goodneſſe unto mine owne knowledge) and delivered by common and ordinary experience, for the curing of thoſe ordinary ſickeneſſes which daily perturbe the health of men and Women. Dr. Bunket. Dr. Semelius.

First then to ſpeake of Feavers or Agues, the Houſwife ſhall know thoſe kinds thereof, which are more familiar and ordinary, as the *Quotidian* or daily Ague, the *Tertian* or every other day Ague, the *Quartane* or every third dayes Ague, the Peſtilent, which keepeth no other in his fits, but is more dangerous and mortall: And laſtly the accidentall Fever which proceedeth from the recite of ſome wound, or other painefull perturbation of the ſpirits. There be ſundry other Fevers which comming from conſumptions, and other long continued ſickneſſes, doe altogether ſurpaſſe our Houſewifes capacity. Of Feavers in generall.

Of the quotidian.

First then for the *Quotidian fever*, (whoſe fits alwaies laſt above twelve houres) you ſhall take a new laid Egge and opening the crowne you ſhall put out the white, then fill up the ſhell with very good *Aquavitæ*, and ſtirre it and the yolke very well together, and then as ſoone as you feele your cold fit begin to come upon you, ſup up the Egge, and eyther labour till you ſwear, or elſe laying great ſtore of cloathes upon you, put your ſelfe in a ſweat in your bed, and thus doe whilſt your fits continue, and for your drinke to be onely Poſſet-ale.

Of the ſingle Tertian.

For a ſingle *Tertian fever*, or each other daies Ague; take a quart of poſſet Ale, the curde being well drained from the ſame, and put thereinto a good handfull of *Dandilion*, and then ſetting it upon the fire, boyle it till a fourth part bee conſumed, then as ſoone as your cold fit beginneth, drinke a good draught thereof, and then eyther labour till you ſweate, or elſe force your ſelfe to ſweat in your bed, but labour is much the better, provided that you take not cold after it, and thus doe whilſt your fits continue, and in all your ſickneſſe let your drinke bee poſſet Ale thus boyled with the ſame Hearbe.

Of the accidentall Feaver.

For the accidentall Feaver which commeth by meanes of ſome dangerous wound received, although for the moſt part it is an ill ſigne, if it be ſtrong and continuing, yet many times it abateth, and the party recovereth when the wound is well tended and comforted with ſuch ſoveraine Balmes and hot Oyles as are moſt fit to be applyed to the member ſo grieved or injured: therefore in this Feaver you muſt reſpect the wound from whence the accident doth proceed, and as it recovereth, ſo you ſhall ſee the Fever waſte and diminiſh.

For the *Hettique feaver*, which is alſo a very dangerous

ſickneſſe,

ſickneſſe, you ſhall take the oyle of Violets, and mixe it with a good quantity of the powder of white *Poppy ſeed* finely ſearſt, and therewith annoint the ſmall and raines of the parties backe evening & morning, and it will not onely give eaſe to the Fever, but alſo purge and cleanſe away the dry ſcalings which is ingendred either by this or any other feaver whatſoever. Of the Fever hetricke.

For any feaver whatſoever, whoſe fit beginneth with a cold. Take a ſpoonefull and a halfe of Dragonwater, a ſpoonefull of Roſewater, a ſpoonefull of running water, a ſpoonefull of *Aquavitæ*, and a ſpoonefull of Vinegar, halfe a ſpoonefull of *Mithridate* or leſſe, and beate all theſe together, and let the party drinke it before his fit begin. For the quartaine or for any Feaver.

It is to be underſtood that all feavers of what kind ſo ever they be, and theſe infectious diſeaſes, as the Peſtilence, Plague, and ſuch like, are thought the inflammation of the blood, infinitely much ſubject to drought; ſo that, ſhould the party drinke ſo much as he deſired, neyther could his body containe it, nor could the great abundance of drinke do other than weaken his ſtomacke, and bring his body to certaine deſtruction. Of thirſt in Feavers.

Wherefore, when any man is ſo overpreſſed with deſire of drink, you ſhall give him at convenient times eyther poſſet Ale made with cold hearbes, as ſorrell, Purſlaine, Violet leaves, Lettice, Spinage, & ſuch like, or elſe a Iulip made as hereafter in the peſtilent Fever, or ſome Almond-milke: and betwixt thoſe times, becauſe the uſe of theſe drinkes will grow wearyſome and loathſome to the patient, you ſhall ſuffer him to gargil in his mouth good wholſome Beare or Ale, wch the patient beſt liketh and having gargled it in his mouth, to ſpit it out againe,

and then to take more, and thus to doe as oft as he pleaseth, till his mouth bee cooled: provided that by no meanes he suffer any of the drinke to goe downe, and this will much better asswage the heate of his thirst than if hee did drinke, and when appetite desireth drinke to goe downe, then let him take eyther his Iulip, or his Almond-milke.

For any ague sore.

To make a pultis to cure any Ague sore, take Elder leaves and seeth them in *Milke* till they bee soft, then take them up and straine them, and then boyle it againe till it be thicke, and so use it to the sore as occasion shall serve.

For the quartaine Fever.

For the *Quartaine* Fever or third day Ague, which is of all Fevers the longest lasting, and many times dangerous, Consumptions, Blacke-jaundice and such like mortall sicknesses follow it: you shall take Mithridate and spread it upon a Lemon slice, cut of a reasonable thickenesse, and so as the Lemon bee covered with the Methridate; then bind it to the pulse of the sicke mans wrist of his arme about an houre before his fit doth beginne, and then let him goe to his bed made warme, and with hot cloathes layd upon him, let him try if hee can force himselfe to sweat, which if he doe, then halfe an houre after hee hath sweat hee shall take hot posset-Ale brewed with a little Mithridate, and drinke a good draught thereof, and rest till his fit bee passed over: but if hee bee hard to sweare, then with the sayd posset Ale also you shall mixe a few bruised Anny-seeds, and that will bring sweate upon him: and thus you shall doe every fit till they beginne to cease, or that sweate come naturally of its owne accord, which is a true and manifest signe that the sickenesse decreaseth.

To make one sweate.

For

Of the peſtilent Fever.

For the peſtilent Feaver, which is a continuall ſickneſſe full of infection, and morrality, you ſhall cauſe the party firſt to bee let blood, if his ſtrength will beare it: then you ſhall give him coole Iulyps made of Endiſe or Succory water, the ſirrope of Violets, conſerve of Barberries, and the juyce of Lemons, well mixed and ſymboliz'd together.

Alſo you ſhall give him to drinke Almond-milke made with the decoction of coole hearbes, as Violet-leaves, Strawberry leaves, French mallowes, Purſlane, and ſuch like; and if the parties mouth ſhall through the heate of his ſtomacke, or liver inflame or grow ſore, you ſhall waſh it with the ſirrope of Mulberries, and that will not onely heale it, but alſo ſtrengthen his ſtomacke. (For as it is moſt common in this ſickneſſe) the party ſhall grow coſtive, you ſhall give him a ſuppoſitary made of Honey boyld to the height of hardneſſe, which you ſhall know by cooling a drop thereof, and ſo if you finde it hard, you ſhall then know that the Hony is boyled ſufficiently; then put Salt to it, and ſo put it in water, and worke it into a roule in the manner of a ſuppoſitary, & adminiſter it, and it moſt aſſuredly bringeth no hurt, but eaſe to the party, of what age or ſtrength ſoever hee be: during his ſickneſſe, you ſhal keepe him from all manner of ſtrong drinkes, or hot ſpices, and then there is no doubt of his recovery.

A preſervative againſt the plague.

To preſerve your body from the infection of the plague, you ſhall take a quart of old ale, and after it hath riſen upon the fire & hath beene ſcummed, you ſhall put thereinto of *Ariſtolochia longa*, of *Angelica* & of *Cellandine* of each halfe an handfull, and boyle them well therein; then ſtrain the drink through a cleane cloath, & diſſolve therein a dramme of the beſt *Mithridate*, as much *Ivory* finely

finely powdred and ſearſt, and ſixe ſpoonefuls of *Dragon* water, then put it up in a cloſe glaſſe; and every morning faſting take five ſpoonefuls thereof, and after bite and chaw in your mouth the dryed root of *Angelica*, or ſmell on a noſe-gay made of the raſſeld end of a ſhip-rope, and they will ſurely preſerve you from infection.

For infection of plague.

But if you be infected with the plague, and feele the aſſured ſignes thereof, as paine in the head, drought, burning, weakeneſſe of ſtomacke and ſuch like: Then you ſhall take a dram of the beſt *Mithridate*, and diſſolve it in three or foure ſpoonefuls of *Dragon-water*, and immediately drinke it off, and then with hot cloathes or brickes made extreame hot, and layd to the ſoales of your feet, after you have beene wrapt in woollen cloathes, compel your ſelfe to ſweat, which if you doe, keepe your ſelfe moderately therein till the ſore begin to riſe; then to the ſame apply a live Pigeon cut in two parts, or elſe a playſter made of the yolke of an Egge, Honey, Hearb of grace chopt exceeding ſmall, and Wheat-flower which in very ſhort ſpace will not onely ripen, but alſo breake the ſame without any other inciſion; then after it hath runne a day or two, you ſhall apply a playſter of *Melilot* unto it untill it be whole.

For the peſtilence.

Take *Fetherfew*, *Maleſcelon*, *Scabious*, and *Mugwort*, of each a like, bruiſe them and mixe them with old Ale, and let the ſicke drinke thereof ſixe ſpoonefuls, and it will expell the corruption.

Another.

Take *Yarrow*, *Tanſie*, *Fetherfew*, of each a handfull, and bruiſe them well together, then let the the ſicke party make water into the Hearbs, then ſtraine them, and give it the ſicke to drinke.

A preſervation againſt the peſtilence.

Take of *Sage*, *Rue*, *Brier-leaves*, or *Elder-leaves*, of each an handfull, ſtampe them and ſtraine them with a quart

of

of white wine, and put thereto a little *Ginger*, and a good ſpoonefull of the beſt *Treackle*, and drinke thereof morning and evening.

Take *Smallage*, *Mallowes*, *Wormewood*, and *Rue*, ſtampe them well together, and fry them in *oyle Olive*, till they be thicke; playſterwiſe apply it to the place where you would have it riſe, and let it lie untill it breake: then to heale it up, take the juyce of *Smallage*, *Wheatflower*, and *Milke*, and boile them to a pultis, and apply it morning and evening till it be whole. How to draw a plague botch to any place you will.

Take of *Burrage*, *Langdebeefe*, and *Callamint*, of each a good handfull, of *Harts tongue*, *Red-mint*, *Violets*, and *Marigolds*, of each a handfull, boyle them in white Wine, or faire running water, then adde a penny-worth of the beſt *Saffron*, and as much *Sugar*, and boyle them over againe well, then ſtraine it into an earthen pot, and drink thereof morning and evening, to the quantity of ſeaven ſpooneſuls. A Cordiall for any infection at the heart.

Take *Linſeed*, and *Lettice*, and bruiſe it well, then apply it to the ſtomacke, and remove it once in foure houres. Againſt too violent ſweating.

For the *Head-ach*, you ſhall take of *Roſewater*, of the juyce of *Camomile*, of womans milke, of ſtrong *Wine-vinegar*, of each two ſpooneſuls, mixe them together well upon a chaffing-diſh of coales: then take of a peece of a dry Roſe-cake and ſteepe it therein, and as ſoone as it hath drunke up the liquor and is throughly hot, take a couple of ſound *Nutmegs* grated to powder, and ſtrew them upon the Roſe-cake; then breaking it into two parts, bind it upon the temples of the head, ſo let the partie lie downe to reſt, and the paine will in a ſhort ſpace be taken from him. For the head-ache.

For *Frenzie* or inflammation of the calles of the braine, you ſhall cauſe the juyce of *Beetes* to be with a Serringe For the Frenzy

ſquirted

ſquirted up into the patients noſthrils, which will purge and cleanſe his head exceedingly; and then give him to drinke Poſſet-ale, in which *Violet* leaves and *Lettice* hath beene boyled, and it will ſodainely bring him to a very temperate mildneſſe, and make the paſſion of Frenzie forſake him.

For the lethargy.

For the *Lethargie* or extreame drowſineſſe, you ſhall by all violent meanes either by noyſe or other diſturbances, force perforce keepe the party from ſleeping; and whenſoever he calleth for drinke, you ſhall give him *White-wine* & *Iſop-water*, of each a little quantity mixt together, & not ſuffer him to ſleepe above foure houres in foure & twenty, till he come to his former wakefulneſſe which as ſoone as hee hath recovered, you ſhall then forthwith purge his head with the juyce of *Beets* ſquirted up into his noſthrils as is before ſhewed.

To provoke ſleepe.

But if any of the family bee troubled with too much watchfulneſſe, ſo that they cannot by any meanes take reſt, then to provoke the party to ſleepe, you ſhall take of *Saffron* a dramme dryed, and beaten to powder, and as much *Lettice-ſeed* alſo dryed, and beaten to powder, and twice as much white *Poppy-ſeed* beaten alſo to powder, & mixe theſe with womans-milke till it be a thicke ſalve, and then binde it to the temples of the head, and it will ſoone cauſe the party to ſleepe; and let it lye on not above foure houres.

For the ſwimming of the head.

For the ſwimming or dizing in the head, you ſhall take of *Agnus caſtus*, of *Broomewort*, and of *Camomile* dryed, of each two drammes mixt with the juyce of *Ivie*, Oyle of Roſes, and White-wine, of each like quantity, till it come to a thicke ſalve, and then binde it to the temples of the head, and it will in ſhort ſpace take away the griefe.

For

For the *Apoplexy* or *Palſie*, the ſtrong ſent or ſmell of a Foxe is exceeding ſoveraigne, or to drinke every morning halfe a pint of the decoction of *Lavender*, and to rub the head every morning and evening exceeding hard with very cleane courſe cloath, whereby the humours may be diſſolved and diſperſt into the outward parts of the body: by all meanes for this infirmity keepe your feet ſafe from cold or wet, & alſo the nape of your necke, for from thoſe parts it firſt getteth the ſtrength of evill and unavoydable paines. For the Palſie.

For a cough or cold but lately taken, you ſhall take a ſpoonfull of *Sugar* finely beaten and ſearſt, and drop into it of the beſt *Aquavitæ*, untill all the *Sugar* be wette through, and can receive no more moyſture: Then being ready to lie downe to reſt, take and ſwallow the ſpoonefull of *Sugar* downe, and ſo cover you warme in your bed, and it will ſoone breake and diſſolve the cold. For a new cough.

But if the cough be more old and invererate, and more inwardly fixt to the lungs, take of the powder of *Betony*, of the powder of *Carraway-ſeeds*, of the powder of *Cheruill* dryed, of the powder of *Houndstongue*, and of *Pepper*, finely beaten, of each two drammes, and mingling them well with clarified hony make an electuary therof & drinke it morning & evening for nine daies together: then take of *Sugar-candy* courſly beaten, an ounce of *Licoras* finely pared and trimmed, and cut into very little ſmall ſlices, as much of *Anny-ſeeds* and *Coriander-ſeeds* halfe an ounce: mixe all theſe together, and keepe them in a paper in your pocket, & ever in the day time when the cough offendeth you, take as much of this dredge, as you can hold betweene your thumbe and fingers & eate it, and it will give eaſe to your griefe: And in the night when the cough taketh you, take of the juyce of *Licoras* For an old cough.

as

as two good Barly cornes, and let it melt in your mouth and it will give you ease.

For the falling sickneſſe. Although the falling ſickneſſe be ſeldome or never to be cured, yet if the party which is troubled with the ſame, will but morning and evening, during the wane of the Moone, or when ſhe is in the ſigne *Virgo*, take the berries of the hearbe *Aſterion*, or beard rie hearbs about him next to his bare skin, it is likely he ſhall finde much eaſe and fall very ſeldom, though this medicine be ſomewhat doubtfull.

For the falling evill. For the falling evill take, if it be a man, a female *mole*, if a woman a male *mole*, and take them in *March*, or elſe *Aprill*, when they goe to the Backes. Then dry it in an oven, and make powder of it whole as you take it out of the earth: then give the ſicke perſon of the powder to drinke evening & morning for 9 or 10 daies together.

Of an Oyle to helpe hearing. To take away deafeneſſe, take a gray Eele with a white belly and put her into a ſweet earthen pot quicke, & ſtop the pot very cloſe with an earthen couer, or ſome ſuch hard ſubſtance: then dig a deepe hole in a horſe dung hill, and ſet it therein, and cover it with the dung, and ſo let it remaine a fortnight, and then take it out and cleare out the oile which will come of it, and drop it into the imperfect eare, or both, if both be imperfect.

For the Rhume. To ſtay the flux of the Rhume, take Sage and dry it before the fire, and rub it to powder; Then take bay Salt and dry it and beare it to powder, and take a Nutmeg and grate it, and mixe them all together and put them in a long linnen bag, then heat it upon a tile ſtone, and lay it on the nape of the necke.

For a ſtinking breath. For a ſtinking breath, take Oake buds when they are new budded out, and diſtill them, then let the party grieved nine mornings, and nine evenings, drinke of it,

then

then forbeare a while, and after take it againe.

To make a vomit for a strong stinging breath, you must take of *Antimonium* the weight of three Barley cornes, and beate it very small, and mixe it with conserve of Rosas, and give the Patient to eate in the morning, then let him take nine daies together the juyce of *Mints* and *Sage*, then give him a gentle purgation, and let him use the juyce of *Mints* and *Sage* longer. This medicine must be given in the spring of the yeere, but if the infirmity come for want of digestion in the stomacke then take *Mints*, *Marjoram*, and *Worme-wood*, and chop them small and boile them in a *Malmsie* till it be thicke, and make a plaister of it, and lay it to the stomacke. A vomit for an ill breath.

For the *Tooth-ach* take a handfull of *Dasie roots*, and wash them very cleane, and drie them with a cloath, and then stampe them: and when you have stamped them a good while, take the quantity of halfe a nut-shell full of Bay-salt, and strew it amongst the rootes, and then when they are very well beaten, straine them through a cleane cloath: then grate some *Galanga Aromaticus*, and mixe it good and stiffe with the juyce of the roots, and when you have done so, put it into a quil and snuffe it up into your nose, and you shall finde ease. For the Tooth-ach,

Another for the *Tooth-ach*, take small *Sage*, *Rue*, *Smallage*, *Fetherfew*, *Wormewood*, and *Mints*, of each of them halfe a handfull, then stamp them well all together, putting thereto foure drams of *Vinegar*, and one dram of *Bay-salt*, with a penny-worth of good *Aquavite*: stirre them well together, then put it betweene two linnen clours of the bigneſſe of your cheeke, temples, and jawe, and quilt it in manner of a course imbroydery: then set it upon a chaffing-dish of coales, and as hot as you may abide it, lay it over that side where the paine is, and lay Another.

you

you downe upon that side, and as it cooles warme it againe, or else have another ready warme to lay on.

A drinke for a pearle in the eye.

To make a drinke to destroy any pearle or filme in the eye: take a good handfull of *Marigold-plants*, & a handfull of *Fennell*, as much of *May-weed* beate them together, then straine them with a pint of beere, then put it into a pot & stop it close that the strength may not goe out, then let the offended party drinke thereof when he is in bed, and lie of that side on which the pearle is and likewise drinke of it in the morning next his heart when he is risen.

For paine in the eyes.

For payne in the eyes, take *Milke* when it comes new from the Cow, and having syled it into a cleane vessell, cover it with Pewter-dish, and the next morning take off the dish and you shall see a dew upon the same, and with that dew wash the pained eyes & it will ease them.

For dimme eyes.

For dimme eyes: take *Wormwood*, beaten with the gall of a Bull, and then straine it, and annoynt the eyes therewith, and it will cleare them exceedingly.

For sore eyes.

For sore eyes or blood shotten eyes: take the white of an *Egge* beaten to oyle, as much *Rosewater*, and as much of the juyce of *House-leeke* mixe them well together, then dip flat pleageants therein, and lay them upon the sore eyes, and as they dry so renew them againe, and wet them, and thus doe till the eyes be well.

For watery eyes.

For watery eyes take the juyce of *Affodill*, *Mirrhe*, and *Saffron* of each a little, and mixe it with twice so much white *Wine*, then boyle it over the fire, then straine it & wash the eyes therewith, and it is a present helpe.

For a canker.

For a Canker or any sore mouth: take *Chervile* and beate it to a salve with old Ale and *Allome-water*, and annoynt the sore therewith, and it will cure it.

A swelled mouth.

For any swelling in the mouth: take the juyce of *Worm-*

wood,

wood, *Cammomill*, and *Shirwitt*, and mixe them with hony, and bath the ſwelling therewith, and it will cure it.

For the *Quinſie*, or *Quinzey*, give the party to drinke the herbe *Mouſeare* ſteept in Ale or Beere, and looke where you ſee a Swine rub himſelfe, and there upon the ſame place rub a ſleight ſtone, and then with it ſleight all the ſwelling, and it will cure it. For the Quinſie.

If you would not be drunke, take the powder of *Betony* and *Coleworts* mixt together; and eate it every morning faſting, as much as will lie upon a ſixpence, and it will preſerve a man from drunkenneſſe. Againſt drunkenneſſe.

To quicken a mans wits, ſpirit and memory; let him take *Langdebeefe*, which is gathered in *Iune* or *July*, and beating it in a cleane morter; Let him drinke the juyce thereof with warme water, and hee ſhall finde the benefit. To quicken the wit.

If a man be troubled with the *Kings-evill*, let him take the red *Docke*, and ſeeth it in Wine till it be very tender, then ſtraine it, and ſo drinke a good draught thereof, and hee ſhall finde great eaſe from the ſame: eſpecially if hee doe continue the uſe thereof. For the Kings Evill.

Take *Frankinſence*, *Doves-dung*, and *Wheat-flower*, of each an ounce, and mixe them well with the white of an egge, then plaiſtewiſe rapply it where the paine is. Additions to the particular ſickneſſes and firſt of the head and the parts thereof, and the lungs.

The oyle of *Lillies* if the head be annointed therewith, is good for any paine therein.

Take *Rew*, and ſteepe it in Vinegar a day and a night, the *Rew* being well bruiſed, then with the ſame annoynt the head twice or thrice a day. Another.

Take the white of an egge and beat it to oyle, then put to it *Roſewater*, and the powder of *Alablaſter*, then take flaxe and dippe it therein, and lay it to the temples, and renew it two or three times a day. For the headach, and to ſtay bleeding at the Noſe.

To draw out bones broken in the head.

Take *Agrymonie* and bruise it, and plaster-wise apply it to the wound, and let the party drinke the juyce of *Betony*, and it will expell the bones, and heale the wound.

For the falling of the mould of the head.

Take the leaves of *Agrymonie*, and boile them in hony, till it be thicke like a plaister, and then apply it to the wound of the head warme.

For the Squinancie.

Take a table-napkin or any linnen cloth, and wet it in old water, and when you goe to bed apply it to the swelling, and lie upright; thus doe three or foure times in a night till the swelling waste.

For the tooth ake.

Take two or three *Docke* roores, and as many *Daisie* rootes, and boyle them in water till they be soft, then take them out of the water, and boyle them well over againe in *oile Olive*, then straine them thorow a cleane cloth, and annoynt the pained tooth therewith, and keepe your mouth close, and it will not onely take away the paine, but also ease any megrem or griefe in the head.

To make teeth white.

Take a sawcer of strong vinegar, and two spoonfulls of the powder *Roch-allom*, of spoonfull of white salt, and a spoonfull of hony, seeth all these till it be as thinne as water, then put it into a close viol and keepe it, and when occasion serves, washe your teeth therewith, with a rough cloth, and rub them soundly, but not to bleed.

To draw teeth without yron.

Take some of the greene of the Elder tree, or the apples of Oke trees, and with either of these rub the teeth and gummes and it will loosen them so as you may take them out.

For teeth that are yellow.

Take Sage and Salt, of each alike, and stampe them well together, then bake it till it be hard, and make a fine powder thereof, then therewith rub the teeth evening and morning, and it will take away all yellownesse.

First

For teeth that are looſe.

Firſt let them blood, then take *Hart-horne* or *Ivorie* and red *Pimpernell*, and bruiſe them well together, then put it into a linnen cloth and lay it to the teeth, and it will faſten them.

For any venom in the eare.

Take the juyce of *Lovage* and drop it into the eare, and it will cure any venome, and kill any worme, eare-wigge, or other vermine.

For a ſtrinking breath which commeth from the ſtomacke.

Take two ounces of *Comine*, and beat it in a morter to fine powder, then boyle it in Wine from a pottell to a quart, then drinke thereof morning and evening as hot as you can ſuffer, or otherwiſe take an ounce of wild time, and being cleane waſhed, cut it ſmall and then powder it, then put to it halfe an ounce of *Pepper* in fine powder, and as much *Comine*, mixe them all well together, and boile them in a pottell of white Wine, till halfe be conſumed and after meat (but not before) uſe to drinke therof hot, alſo once in the afternoone and at your going to bed, and it will purge the breath.

For ſtinking noſtrills.

Take red *Nettles* and burne them to powder, then adde as much of the powder of *Pepper*, and mixe them well together, and ſnuffe thereof up into the noſe, and thus doe divers times a day.

For a canker in the noſe.

Take old Ale, and having boyld it on the fire, and cleanſed it, adde thereto a pretty quantity of lyfe hony and as much Allom, and then with a ſerrindge or ſuch like waſh the ſores therewith very warme.

A red water for any canker.

Take a gallon of running water, and boile it to a pottell, then put to it a handfull of red Sage, a handfull of Cellandines, a handfull of Hony-ſuckles, a handfull of Woodbine-leaves and flowers, then take a peniworth of graines made into fine powder, and boile all very wel together, then put to it a quart of the beſt life hony of a yeare old, and a pound of Roch Allom, let all boyle

together till it come to a pottell, then ſtraine it and put it into a cloſe veſſell, and therewith dreſſe and annoynt the ſores as occaſion ſerves, it will eaſe any canker or ulcer, and cleanſe any wound; It is beſt to be made at Midſommer.

To cleere the eyes. Take the flowers and rootes of *Primroſe* cleane waſht in running water, then boyle them in faire running water the ſpace of an houre, then put thereto a pretty quantity of white *Copperas*, and then ſtraine all through a linnen cloth, and ſo let it ſtand a while, and there will an Oyle appeare upon the water, with that oyle annoynt the lids and the browes of your eyes, and the temples of your head, and with the water waſh your eyes, and it is moſt ſoveraigne.

Another for the ſight. Take fifteene ſeeds of *Gyneper*, and as many *Growell* ſeedes, five branches of *Fenell*, beate them all together, then boyle them in a pint of old Ale till three parts be waſted; then ſtraine it into a glaſſe, and drop thereof three drops into each eye at night, and waſh your eyes every morning for the ſpace of fifteene daies with your owne water, and it will cleare any decayed ſight whatſoever.

For ſore eyes. Take red *Snayles*, and ſeeth them in faire water, and then gather the oyle that ariſeth thereof, and therewith annoynt your eyes morning and evening.

For ſicke eyes. Take a gallon or two of the dregges of ſtrong Ale, and put thereto a handfull or two of *Comine*, and as much *ſalt*, and then diſtill it in a *Limbecke*, and the water is moſt pretious to waſh eyes with.

For bleered eyes. Take *Celladine*, *Rue*, *Chervile*, *Plantaine*, and *Anyſe*, of each alike, and as much *Fenell*, as of all the reſt, ſtamp them all well together, then let it ſtand two daies and two nights, then ſtraine it very well and annoynt

your

your eyes morning and evening therewith.

For the pin and web in the eye.

Take an *Egge*, and roſt it extreme hard, then take the white being very hot, and lap in it as much white *copperas* as a peaſe, and then violently ſtraine it through a fine cloth, then put a good drop thereof into the eye, and it is moſt ſoveraigne.

A pouder for the pin and web in the eye.

Take two drams of prepared *Tutia*, of *Sandragon* one dram, of *Sugar* a dram, bray them all very well together till they be exceeding ſmall, then take of the powder and blow a little thereof into the eye, and it is ſoveraigne.

A precious water for the eyes.

Take of *Red roſe leaves*, of *Smallage*, of *Maydenhaire*, *Enſaace endive ſuccory red fennell, hill-wort*, and *Sellondine*, of each halfe a quarter of a pound, waſh them cleane, and lay them in ſteepe in white-wine a whole day, then ſtill them in an ordinary Still, and the firſt water will be like gold, the ſecond like ſilver, and the third like balme, any of theſe is moſt precious for ſore eyes, and hath recovered ſight loſt for the ſpace of ten yeares, having beene uſed but foure daies.

To make haire to grow.

Take the leaves of *Willow*, and boile them well in oile and therewith annoint the place where you would have any haire to grow, whether upon head or beard.

Another.

Take *Treakle* water and honey, and boile them together, and wet a cloth therin, and lay it where you would have haire to grow, and it will come ſpeedily.

For a pimpled or red ſaucie face.

Take nine or ten egges, and roſt them very hard, then put away the yolkes, and bray the whites very ſmall with three or foure ounces of white *copperas*, till it bee come to perfect oyntment, then with it annoynt the face morning and evening for the ſpace of a weeke and more.

For the rhume.

Take the rynde of *Iſſop*, and boile it or burne it and let the fume or ſmoke goe into the mouth, and it will ſtay any rhume falling from the head

For hoarsnesse in the throat.

Take a pint of running water, and three spoonefulls of hony and boile them together and skim off the filth, then put thereto an ounce of small *Raysons*, and straine it well thorow a cloth, and so drinke it morning and evening.

For a dangerous cough.

Take *Aquavitæ* and salt, and mix it with strong old ale and then heat it on the fire; and therewith wash the soales of the feet when you goe to bed.

For the drie cough.

Take of cleane Wheat and of cleane Barley of each a like quantitie, and put them into a gallon and an halfe of faire water, and boyle them till they burst, then straine it into a cleane vessell, and adde thereto a quarterne of fine *Lycoras* powder, and two penny-worth of *gumme-Arabecke*, then boyle it over againe and straine it, and keepe it in a sweet vessell, and drinke thereof morning and evening.

For the tisicke.

Take the best wort and let it stand till it bee yellow, then boyle it and after let it coole, then put to it a little quantitie of *barme* and *saffron*, and so drinke of it every morning and evening while it lasteth: otherwise take *hore-hound*, *Violet leaves*, and *Isop*, of each a good handfull, seeth them in water, and put thereto a little *Saffron*, *Lycoras*, and *Sugar-candy*, after they have boiled a good while, then straine it into an earthen vessell, and let the sicke drinke thereof six spoonefulls at a time morning and evening: or lastly, take the lungs of a Fox, and lay it in Rose-water, or boyle it in Rose-water, then take it out and dry it in some hot place without the Sun, then beat it to powder with *Sugar-candy*, and eat of this powder morning and evening.

For griefes in the stomacke.

To ease paine in the stomacke, take *Endive*, *Mint*, of each a like quantitie, and steepe them in white *Wine* a dayes space, then straining it, and adding thereunto a little

little *Cinamon* and *Pepper*, give it to the ſicke perſon to drinke, and if you adde thereto a little of the powder of *Horſe-mint* and *Calamint*, it will comfort the ſtomacke exceedingly, and occaſion ſwift and good digeſtion.

For ſpitting of bloud, whether it proceed of inward bruiſes, overſtraining or ſuch like, you ſhall take ſome pitch, and a little *Sperma Cæti*, and mix it with old Ale and drinke it, and it will ſtay the flux of bloud: but if by meanes of the bruiſe any outward griefe remaine, then you ſhall take the herb *Brockellbeuge*, and frying it with ſheepes tallow lay it hot to the grieved place, and it will take away the anguiſh. For ſpitting of bloud.

To ſtay the flux of vomiting take *Worme wood*, and ſowre bread toſted of each a like quantity, and beat them well in a mortar, then adde to them as much of the juyce of *Mints*, and the juyce of *Plantaine* as well bring it to a thicke ſalve: then fry them all together in a frying-pan, and when it is hot lay it plaiſter-wiſe to the mouth of the ſtomacke, then let the party drinke a little white wine and *Cherrie* water mixt together, and then ſteepe ſower toſted bread in very ſtrong Vinegar, wrapt in a fine cloth, and let the ſicke party ſmell thereto, and it will ſtay the exceſſe of vomiting, and both comfort and ſtrengthen the ſtomacke. For Vomiting.

If you would compell one to vomit, take halfe a ſpoonefull of *Stonecrop*, and mix it with three ſpoonefuls of white wine, and give it to the party to drink, and it will make him vomit preſently, but doe this ſeldome and to ſtrong bodies, for otherwiſe it is dangerous. To force one to vomit.

For the *Iliaca Paſſio*, take of *Polipody* an ounce, and ſtamp it, then boyle it with prunes & violets in *fennell* water or *Anniſeed*-water, take thereof a good quantity, then ſtraine it and let the party every morning For the Iliaca paſſio.

and evening drinke a good draught thereof.

Additions to the diseases of the stomacke.

For the stomacke.

If the stomacke bee troubled with winde or other paine, take *Comwine* and beat it to powder, and mix with it red wine, and drinke it at night when you goe to bed, divers nights together.

For the Ilica passio.

Take *Brokeline* roots & leaves, and wash them cleane, and dry them in the Sunne, so dry that you may make powder thereof, then take of the powder a good quantity, and the like of *Treakle*, and put them in a cup with a pretty quantity of strong old ale, and stirre them well together, and drinke thereof first and last morning and evening, for the space of three or foure dayes, and if need doe require, use the same in the broths you doe eat, for it is very soveraigne.

For paine in the stomacke.

Take *Harts-horne* or *Ivory* beaten to fine powder, and as much *Cynamon* in powder, mix them with Vineger, and drinke thereof to the quantity of seven or eight spoonefuls.

For the Mother.

Take the water of *Mousears*, and drinke thereof the quantity of an ounce and a halfe, or two ounces, twice or thrice a day: or otherwise take a little *Nutmeg*, a little *Cinamon*, a little *Cloves*, a little *Mace*, and a very little *Ginger*, and the flowers of *Lavender*, beat all unto a fine powder, and when the passion of the mother commeth, take a chaffingdish of good hot coales, and bend the Patient forward, and cast of the powder into the chaffingdish, so as she may receive the smoake both in at her nose and mouth, and it is a present cure.

Obstructions of the liver.

Against obstructions in the Liver, take *Annifeeds*, *Fennell*, *Burnet*, *Camomile*, and the greater *Centory*, and boyle them in white wine with a little honey, and drinke it every morning, and it will cure the obstructions, and cleanse the Liver from all imperfection.

Against

Againſt the heat and inflammation of the Liver, take *Endive* dryed to powder, and the meale of *Lupin-ſeeds*, and mix it with honey and the juyce of *Worme-wood*, make a cake thereof and eat it, and it will aſſwage the great heat and inflammation of the Liver, and take away the pimples and redneſſe of the face which proceedeth from the ſame. Againſt the heat of the Liver.

To prevent a *Plurifie* a good white before it come, there is no better way than to uſe much the exerciſe of ringing, or to ſtretch your armes upward, ſo as they may beare the weight of your body, and ſo to ſwing your body up and downe a good ſpace: but having caught a Plurifie & feeling the gripes, ſtitches, and pangs thereof, you ſhall preſently cauſe the party to be let bloud, & then take the hearb *Althea* or *Hollyhocke*, and boyle it with *Vinegar* and *Linſeed* till it bee thicke plaiſter-wiſe, and then ſpread it upon a peece of *Allom* Leather, and lay it to the ſide that is grieved, and it will help it. For the Plurifie

To help a ſtitch in the ſide or elſewhere, take Doves dung, red Roſe leaves, and put them into a bag, & quilt it: then thorowly heat it upon a chaffingdiſh of coales with Vinegar in a platter, then lay it unto the pained place as hot as may be ſuffered, and when it cooleth heat it againe. A playſter for a ſtitch.

For any extraordinary heat or inflammation in the Liver, take *Barberries* and boyle them in clarified whay, and drinke them, and they will cure it. Heat in the Liver.

If you wil make a Cordial for a Conſumption, or any other weaknes: take a quart of running water, a peece of *Mutton* and a peece of *Veale*, and put them with the water into a pot, then take of *Sorrell*, *Violet-leaves*, *Spinage*, *Endive*, *Succory*, *Sage*, *Hyſſop*, of each a good quantitie; then take *Prunes* and *Raiſins*, and put them all to the For the Conſumption.

the broth, and ſeethe them from a quart to a pint, then ſtraine the yolke of an egge and a little *Saffron* therein-to, putting in *Sugar*, whole *Mace* and a little white wine, ſo ſeethe them a while together, and let the party drinke it as warme as may be.

To ſtaunch bloud.

To ſtaunch bloud, take the hearb *Shepherds-purſe*, (if it may be gotten) diſtilled at the Apothecaries, and drink an ounce thereof at a time morning and evening, and it will ſtay any flux of bloud naturall or unnaturall, but if you cannot get the *diſtilled* water, then boyle a handfull of the hearb with *Cinamon*, and a little *Sugar*, in *Claret* wine, and boyle it from a quart to a pint, and drinke it as oft as you pleaſe: alſo if you but rub the hearb betweene your hands, you ſhall ſee it will ſoone make the bloud returne.

For the yellow jaundies.

For the *Yellow Iaundiſſe*, take two penyworth of the beſt Engliſh *Saffron*, drie it, and grinde it to an exceeding fine powder, then mix it with the pap of a roſted apple, and give it the diſeaſed partie to ſwallow down, in the manner of a *Pill*, and doe thus divers mornings together, and without doubt, it is the moſt preſent cure that can be for the ſame, as hath beene often times proved.

For the *Yellow Iaundiſſe* take *Pimpernell* and *Chickweed* ſtamp them and ſtraine them into poſſet Ale, and let the partie drinke thereof morning and evening.

For a deſperate yellow jaundiſe

For the *Yellow Iaundiſſe* which is deſperate and almoſt paſt cure: Take ſheepes dung new made, and put it into a cup of Beere or Ale, and cloſe the cup faſt, and let it ſtand ſo all night, and in the morning take a draught of the cleareſt of the drinke, and give it unto the ſicke partie.

For the blacke Jaundies.

For the *blacke Iaundiſſe* take the hearb called *Penny-*

royall

ryall, and either boyle it in white Wine, or drinke the juyce thereof ſimply by it ſelfe to the quantity of three or foure ſpoonefuls at a time, and it will cure the blacke Iaundiſe.

Take of *Hyſſop*, *Parſley*, and *Harts-tongue*, of each a like quantitie, and ſeethe them in wort till they be ſoft, then let it ſtand till it be cold, and then drinke thereof firſt and laſt, morning and evening.

Additions. To the diſeaſes of the liver. For waſting the liver.

Take *Fenel-roots*, and *Parſley roots*, of each a like, waſh them cleane, and pill off the upper barke, and caſt away the pith within, then mince them ſmall, then put them to three pints of water, and ſet them over the fire, then take *figs* and ſhred them ſmall, *Lycoras* and breake it ſmall, and put them to the herbs, and let all boyle very well, then take *Sorrell* and ſtamp it and put it to the reſt, and let it boile till ſome part be waſted, then take a good quantitie of honey and put to it and boile a while, then take it from the fire and clarifie it thorow a ſtrainer into a glaſſe-veſſell, and ſtop it very cloſe, then give the ſicke to drinke thereof morning and evening.

A reſtorative for the liver.

Take the ſtalke of Saint *Mary Garricke*, and burne it, or lay it upon a hot tile-ſtone untill it be very dry, and then beat it into powder, and rub the ſore therewith till it be whole.

To heale a ring worme comming of the heat from the liver.

Take *Woolle* in the *Walkmill* that commeth from the cloth and flyeth about like Downe, and beat it into powder, then take thereof and mix it with the white of anegge and wheat-flower, and ſtamp them together, then lay it on a linnen-cloth or Lint, and apply it to the bleeding place, and it will ſtanch it.

To ſtaunch bloud.

If a man bleed and have no preſent helpe, if the wound be on the foot, binde him about the ankle, if in the legs binde him about the knee, if it be on the hand, binde

For great danger in bleeding

bind him about the wriſt; if it be on the arme bind him about the brawne of the arme, with a good liſt, and the bloud will preſently ſtaunch.

For a ſtitch. Take good ſtore of *Cynamon* grated, and put it into poſſet Ale very hot and drink it, and it is a preſent cure.

A bath for the dropſie. Take a gallon of running water, and put to it as much ſalt as will make the water ſalt as the Sea water, then boyle it a good while, and bath the legs therein as hot as may be ſuffered.

For the dropſy ☞ For the Dropſie, take *Agnus caſtus*, *Fennell*, *Affodill*, darke *Wal-wort*, *Lupins* and *Wormwood*, of each an handfull, and boyle them in a gallon of white wine, untill a fourth part be conſumed: then ſtraine it, and drinke it morning and evening halfe a pint thereof, and it will cure the Dropſie; but you muſt be carefull that you take not *Daffodil* for *Affodil*.

Paine in the ſpleene. For paine in the Spleene, take *Agnus caſtus*, *Agrimony*, *Aniſeeds*, *Centuary* the great, and *Wormewood*, of each a handfull, and boile them in a gallon of white wine, then ſtraine it, and let the patient drinke divers mornings together halfe a pint thereof; and at his uſuall meales let him neither drinke Ale, Beere, nor Wine, but ſuch as hath the herbe *Tamoriske* ſteeped in the ſame, or for want of the herbe, let him drinke out of a Cup made of *Tamoriske* wood, and he ſhall ſurely finde remedy.

For paine in the ſide. For any paine in the ſide, take *Mugwort* and red Sage, and dry them betweene two tile ſtones, and then put it in a bag, and lay it to your ſide as hot as can be indured.

For fatneſſe and ſhort breath. To helpe him that is exceeding fat, purſie, and ſhort breathed: take Honey clarifyed, and Bread unleavened, and make toſts of it, and dip the toſts into the clarifyed Honey, and eat this divers times with your meat.

Take a lumpe of iron or ſteele, and heat it red hot, and

quench

quench it in Wine, then give the wine to the ſicke party to drinke.

Take *Fenell-ſeeds* and the roots, boyle them in water, and after it is cleanſed, put to it hony, and give it the party to drinke, then ſeeth the herbe in oyle and wine together, and plaiſter-wiſe apply it to the ſide.

Addicions, To the diſeaſes of the Spleene. For the Spleen, For the ſtopping of the Spleene.

Make a playſter of *Worme-wood*, boyled in oyle, or make an oyntment of the juyce of *Worme-wood*, of *Vinegar*, *Armoniacke*, *Waxe*, and *Oyle*, mixt and melted togegether, and annoynt the ſide therewith, either in the Sunne, or before the fire.

For the hardneſſe of the Spleene.

Take the powder of *Galingal*, and mixe it with the juyce of *Burrage*, and let the offended party drinke it with ſweete wine.

Diſeaſes of the Heart.

Take *Roſemary* and *Sage*, of each an handfull, and ſeeth them in white Wine, or ſtrong Ale, and then let the patient drinke it lukewarme.

For the paſſion of the Heart. For heart ſickeneſſe.

Take the juyce of *Fenell* mixt with hony, and ſeeth them together till it be hard, and then eate it evening and morning, and it will conſume the fatneſſe.

For fatneſſe about the heart.

For the wind *Collicke*, which is a diſeaſe both generall and cruell, there be a world of remedies, yet none more approved than this which I will repeate: you ſhall take a *Nutmeg* ſound and large, and divide it equally into foure quarters: the firſt morning as ſoone as you riſe eate a quarter thereof; the ſecond morning eate two quarters, and the third eate three quarters, and the fourth morning eate a whole *Nutmeg*, and ſo having made your ſtomacke and taſt familiar therewith, eate every morning whilſt the *Collicke* offendeth you a whole *Nutmeg* dry without any compoſition, and faſt ever an houre at leaſt after it, and you ſhall finde a moſt unſpeakeable profit which will ariſe from the ſame.

For the wind Collicke.

For

The wind Collicke. For the wind Collicke, take a good handfull of cleane wheat meale as it commeth from the Mill, and two eggs, and a little wine-vinegar, and a little *Aquavitæ*, and mingle them together cold, and make a Cake of it, and bake it on a gridyron with a soft fire, and turne it often and tend it with basting of *Aquavitæ* with a feather, then lay it somewhat higher then the paine is, rather then lower.

For the Laske. For the *Laske* or extreme scouring of the belly, take the seedes of the *Wood-rose*, or *Brier-rose*, beate it to powder, and mixe a dramme thereof with an ounce of the conserve of *Sloes* and eate it, and it will in a short space binde and made the belly hard.

For the bloody fluxe. For the *Bloody-fluxe*, take a quart of red Wine, and boyle therein a handfull of *Shepheards purse* till the herbe be very soft: then straine it and adde thereto a quarter of an ounce of *Cynamon*, and as much of dried Tanners barke taken from the ouze, and both beaten to fine powder, then give the party halfe a pint thereof to drinke morning and evening, it being made very warme, and it will cure him.

To stay a laske. To stay a sore *Laske*, take *Plantaine-water* and *Cynamon* finely beaten, and the flowers of *Pomgranate*, and boyle them well together, then take Sugar, and the yolke of an egge, and make a caudell of it, and give it the grieved party.

For the Fluxe. For the *Fluxe*, take Stags pizzell dried and grated, and give it in any drinke, either in Beere, Ale or Wine, and it is most soveraigne for any Fluxe whatsoever: So is the jawe bones of a Pike, the teeth and all dried and beaten to powder, and so given the party diseased in any drinke whatsoever.

To cure the worst bloody Fluxe that may be, take a quart

quart of red wine, and a ſpoonefull of *Cummin-ſeed*, boile them together untill halfe be conſumed, then take *Knotgraſſe* and *Shepheards purſe*, and *Plantain*, and ſtamp them ſeverall, and then ſtraine them, and take of the juyce of each of them a good ſpoonfull, and put them to the wine, and ſo ſeeth them againe a little: then drinke it luke-warme, halfe over night, and halfe the next morning: and if it fall out to be in Winter, ſo that you cannot get the herbes, then take the water of them herbes diſtilled, of each three ſpoonfulls, and uſe it as before. For the worſt Fluxe.

For extreame coſtiveneſſe, or binding in the body, ſo as a man cannot avoid his excrements, take *Anniſeedes*, *Fennicreet*, *Linſeedes*, and the powder of *Poyvie*: of each halfe an ounce, and boile them in a quart of white wine, and drinke a good draught thereof, and it will make a man goe to the ſtoole orderly, and at great eaſe. For coſtiveneſſe.

For wormes in the belly, either of child or man, take *Aloes Cikatrine*, as much as halfe a hazell Nut, and wrap it in the pap of a roaſted Apple, and ſo let the offended party ſwallow it in the manner of a pill faſting in the morning, or elſe mix it with three or foure ſpoonfulls of Muſcadine, and ſo let the party drinke it, and it is a preſent cure: But if the child be either ſo young, or the man ſo weake with ſickneſſe, that you dare not adminiſter any thing inwardly then you ſhall diſſolve your *Aloes* in the oyle of *Savine*, making it ſalve-like thicke, then plaiſter-wiſe ſpread it upon Sheeps leather, and lay it upon the navil & mouth of the ſtomack of the grieved party, and it will give him eaſe; ſo will alſo unſet Leekes chopt ſmall and fryde with ſweete butter, and then in a linnen bag apply it hot to the navill of the grieved party. For Wormes.

Take a quart of red wine, and put to it three yolkes of egges, and a penyworth of long-pepper and graines, and boyle

Additions. To the diſeaſes of the belly and guts.

For the greateſt Lax.

boyle it well, and drinke it as hot as can be ſuffered, or otherwiſe, take an ounce of the inner barke of an Oake, and a peny-worth of long *Pepper*, and boyle them in a pint and better of new Milke, and drinke it hot firſt and laſt, morning and evening.

For the bloody Fluxe.

Take an egge, and make a little hole in the top, and put out the white, then fill it up againe with *Aquavitæ*, ſtirring the egge and *Aquavitæ* till it be hard, then let the party eate the egge and it will cure him: or otherwiſe take a pint of red wine, and nine yolkes of egges, and twenty pepper cornes ſmall beaten, let them ſeeth untill they be thicke, then take it off, and give the diſeaſed party to eate nine ſpoonfulls morning and evening.

For an eaſie Laske.

Take of *Rue* and *Beets* a like quantity, bruiſe them, and take the juyce, mixe it with clarified hony, and boyle it in red wine, and drinke it warme firſt and laſt morning and evening.

To have two ſtooles a day and no more.

Take *Mercury*, *Sinkefoile*, and *Mallowes*, and when you make pottage or broth with other herbs, let theſe herbs before named, have moſt ſtrength in the pottage, and eating thereon it will give you two ſtooles and no more.

For hardneſſe of the belly or wombe.

Take two ſpoonefulls of the juyce of Ivie Leaves, and drinke it three times a day, and it will diſſolve the hardneſſe.

Againſt Coſtiveneſſe.

Take the barke of the rootes of the Elder tree, and ſtampe it, and mixe it with old Ale, and drinke thereof a good hearty draught.

For the wind-Collicke.

Take the crummes of white bread, and ſteepe it in Milke, with *Allom*, and adde Sugar unto it and eate it, and it will open the belly.

For the ſtopping of the wombe.

Take the kernells of three Peach-ſtones, and bruiſe them, ſeven cornes of eaſe pepper, and of ſliced ginger

ger a greater quantity than of the pepper, pound all together groſly and put it into a ſpoonfull of Sack (which is beſt) or elſe whitewine, or ſtrong ale, and drinke it off in a great ſpoone, then faſt two houres after and walke up and downe if you can, if otherwiſe, keep your ſelfe warme, and beware of melancholy. It may bee an enemy at all times.

Take of *Daiſies, comfrey, Polypody*, of the oake and Avens of each halfe a handfull, two roots of *Oſmund*, boile them in ſtrong Ale and hony, and drinke thereof morning, noone, and night, and it will heale any reaſonable rupture. Or otherwiſe take of *Smallage, Comfrey, ſetwell, polypody* that growes on the ground like *fearne, daiſies*, and *mores*, of each a like, ſtampe them very ſmall, and boyle them well in *Barme*, untill it be thicke like a pultis and ſo keep it in a cloſe veſſell, and when you have occaſion to uſe it, make it as hot as the party can ſuffer it, & lay it to the place grieved, then with a truſſe, truſſe him up cloſe, and let him be carefull for ſtraining of himſelfe, and in a few daies it will knit, during which cure give him to drinke a draught of red wine, and put therein a good quantity of the flower of fetches finely boulted ſtirring it well together, and then faſt an houre after. For the Rupture.

For the violent paine of the ſtone, make a poſſet of milke and ſacke, then take off the curd, and put a handfull of *Camomill* flowers into the drink, then put it into a pewter pot and let it ſtand upon hot embers, ſo that it may diſſolve, and then drinke it as occaſion ſhall ſerve. Otherwiſe for this grief take the ſtone of an Oxe gall, and dry it in an oven, then beat it to pouder, and take of it the quantity of a haſill-nut with a draught of good old ale or white wine. For the ſtone. Another.

For the Collicke and ſtone, take hawthorne berries,

The collicke and ſtone.

the berries of ſweet briars, & aſhen keyes, and dry them every one ſeverally untill you make them into pouder, then put a little quantity of every one of them together, then if you thinke good put to it the pouder of *Licoras* and *Anniſeeds*, to the intent that the party may the better take it, then put in a quantity of this pouder in a draught of white wine, and drinke it faſting. Otherwiſe you may take *Smallage-ſeede*, *Parſley*, *Lovage*, *Saxifrage*, and *broome-ſeed*, of each one of them a little quantity, beate them into a pouder, and when you feele a fit of either of the diſeaſes, eate of this pouder a ſpoonefull at a time either in pottage, or elſe in the broth of a chicken, and ſo faſt two or three houres after.

Another.

A pouder for the collicke and ſtone.

To make a pouder for the collicke and ſtone, take *fenell*, *parſley-ſeed*, *aniſeed*, and *carraway ſeed*, of each the waight of ſix pence, of *gromel ſeed*, *ſaxifrage ſeed*, the roots of *Filapendula*, and *licoras*, of each the waight of twelve pence, of *gallingall*, *ſpikenard*, and *Cinamon*, of each the waight of eight pence, of *Seeva* the waight of 17. ſhillings good waight, beate them all to pouder and ſearce it, which wil waigh in all 25. ſhillings and 6 pence. This pouder is to bee given in white wine and ſugar in the morning faſting, and ſo to continue faſting two houres after; and to take of it at one time the waight of tenne pence or twelve pence.

Another.

Other Phyſitians for the ſtone take a quart of rhenniſh or white wine, and two limons, and pare the upper rinde thinne, and ſlice them into the wine, and as much white ſoap as the waight of a groat, and boyle them to a pinte, and put thereto ſugar according to your diſcretion, and ſo drinke it keeping your ſelfe warme in your bed, and lying upon your backe.

For the ſtone in the reynes, take *Annis*, *Fennell*,

Maiden-haire, *Sparrow-tongue*, and *Philipendula*, each a like quantity, dry it in an oven, and then beate it to pouder, and every morning drinke halfk a ſpoonfull therof with a good draught of white wine, and it will helpe. For the ſtone in the reynes.

For the ſtone in the bladder, take a Radiſh-root and ſlit it croſſe twice, then put it into a pinte of white wine, and ſtoppe the veſſell exceeding cloſe: then let it ſtand all one night, and the next morning drinke it off faſting, and thus doe divers mornings together, and it will helpe. For the ſtone in the bladder.

For the ſtone in the bladder take the kernels of ſloes and dry them on a tile-ſtone, then beate them to pouder, then take the roots of *Alexanders*, *parſly*, *pellitory*, and *holihocke*, of every of their roots a like quantity, & ſeeth them all in white wine, or elſe in the broath of a young chicken: then ſtraine them into a cleane veſſell, and when you drinke of it, put into it halfe a ſpoonefull of of the powder of ſlow kernels. Alſo if you take the oyle of Scorpion, it is very good to anneint the members, and the tender part of the belly againſt the bladder. A pouder for the ſtone in the bladder.

To make a bath for the ſtone, take *mallowes*, *holihocke*, and *lilly roots*, and *linſeed*, *pellitory* of the wall, and ſeeth them in the broth of a ſheeps head, and bath the reynes of the backe therewith oftentimes, for it will open the the ſtraightneſſe of the water conduits, that the ſtone may have iſſue, and aſſwage the paine, and, bring out the gravell with the urine: but yet in more effect, when a plaiſter is a made and laid unto the reines and belly immediately after the bathing. A bath for the ſtone.

To make a water for the ſtone, take a gallon of new milke of a red Cow, and put therein a handfull of *Pellitory* of the wall, and a handfull of wild time, and a handfull of *Saxifrage* & a handfull of *Parſly*, & two or three A water for the ſtone.

radish rootes sliced and a quantity of *Philipendula* roots, let them lie in the milke a night, and in the morning put the milke with the hearbs into a still, and distill them with a moderate fire of charcole or such like: then when you are to use the water, take a draught of rhenish wine or white wine, and put into it five spoonefuls of the distilled water, and a little sugar and nutmeg sliced, and then drinke of it, the next day meddle not with it, but the third day doe as you did the first day, and so every other day for a weekes space.

Difficulty of Vrine.

For the difficulty of urin, or hardnesse to make water, take *Swallage*, *Dil*, *Any-seeds* and *Burnet*, of each a like quantity, and dry them and beate them to fine pouder, and drink halfe a spoonfull thereof with a good draught of white wine.

For hot urine.

If the Urine bee hot and burning, the party shall use euery morning to drinke a good draught of new milke and sugar mixt together, and by all meanes to abstaine from beere that is old, hard, and tart, and all from meats and sawces which are sowre and sharpe.

For the strangullion.

For the strangullion, take *Saxifrage*, *Polypody*, of the Oake, the roots of beanes, and a quantity of *Raysins*, of every one three handfull or more, and then two gallonds of good wine, or else wine lees, and put it into a slerpentary and make therof a good quantity, and give the sicke to drinke morning and evening a spoonefull at once.

For pissing in bed.

For them that cannot hold their water in the night time, take *Kids* hoofe and dry it and beate it into pouder, and give it to the patient to drinke, either in beere or ale foure or five times.

For the rupture.

For the rupture or burstnesse in men, take *Comfery* and *Fenecosmuth*, and beate them together with

yellow

yellow waxe and Deares ſuet untill it come unto a ſalve, and then apply it unto the broken place, and it will knit it; alſo it ſhall bee good for the party to take *Comphry* roots, and roſt them in hot embers as you roſt Wardens, and let the party eat them, for they are very ſoveraigne for the rupture, eſpecially being eaten in a morning faſting, and by all meanes let him weare a ſtrong truſſe till it be whole.

Additions.

To the diſeaſes of the reines and bladder.

Take *Goats* clawes, and burne them in a new earthen pot to powder, then put of the powder into broth or pottage, and eat it therein: or otherwiſe take *Raw Parſly*, and *Gromel*, and ſtampe them together, and mike it with wine and drinke it.

For him that cannot hold his water.

Take *Agnus caſtus* and *Caſtoreum* and ſeeth them together in wine, and drinke thereof, alſo ſeeth them in vinegar and lap it hot about the privie parts, and it will helpe.

For the Gonorrea or ſhedding of ſeed.

Take *Malmſey* and butter, and warme it and waſh the reines of the back, whereupon you find paine, then take oyle of *Mace* and annoint the backe therewith.

For weakneſſe in the backe.

Firſt waſh the reines of the backe with warme white wine, then annoynt all the backe with the oyntment called *Perfumeto*.

For heat in the reines.

For comforting and ſtrengthning of the backe.

Take a leg of beefe, a handfull of *Fennel* roots, a handfull of *parſley* roots, two roots of *comphry*, one pound of *raiſins* of the Sunne, a pound of damaske *prunes*, and a quarter of a pound of *dates*, put all theſe together, and boile them very ſoft with ſixe leaves of *ſage*, ſixe leaves of *clary*, twelve leaves of *bittany* of the wood, and a little *harts-tongue*, when they are ſod very ſoft, take them into the ſame broth againe with a quart of ſacke, and a penny-worth of large mace, and of this drinke at your pleaſure.

For the Hemeroids.

For the Hemeroides, which is a troublesome and a sore griefe, take of *Dill*, *Dogge-fennell*, and *Pellitory of Spaine*, of each halfe a handfull, and beat it in a morter with Sheeps suet and blacke sope till it come to a salve, and then lay it plaisterwise to the sore, and it will give the griefe ease.

For the piles or Hemeroids

For the Piles or Hemeroids, take halfe a pint of ale, and a good quantity of pepper, and as much allome as a walnut: boile all this together till it be as thicke as bird-lime or thicker, this done, take the juyce of white violets, and the juyce of housleeke, and when it is almost cold, put in the juyce and straine them all together, and with this oyntment annoint the sore place twice a day. Otherwise for this griefe take Lead and grate it small, and lay it upon the sores: or else take muskles dried and beat to powder, and lay it on the sores.

For the falling of the fundament.

If a mans fundament fall downe through some cold taken, or other cause, let it be forthwith put up againe: then take the powder of *Towne cresses* dryed, and strew it gently upon the fundament, and annoynt the reines of the backe with honey, and then about it strew the powdrr of *Cummin* and *Calamint* mixt together, and ease will come thereby.

Additions, to the diseases of the private parts.

For the Hemeroids.

Take a great handfull of *orpyne*, and bruise them between your hands til it be like a salve, and then lay them upon a cloth and bind them fast to the fundament.

For the greene sickenesse.

To helpe the greene sickenesse, take a pottle of white wine and a handfull of *Rosemary*, a handfull of *wormwood*, an ounce of *Cardus benedictus* seed, a dramme of *Cloves*: all these must be put into the white wine in a jugge, and covered very close, and let it steepe a day and a night before the party drinke of it, then let her drinke of it every morning and two houres before supper:

and

and to take it for a fortnight, and let her ſtirre as much as ſhe can, the more the better, and as early as ſhee can: otherwiſe for this ſickneſſe take *Hyſope*, *Fennell*, and *Pen-ny-royal*, of theſe three one good handfull, take two ounces of *Currants*, ſeeth theſe in a pint of faire water to a halfe; then ſtraine the hearbs from the liquor, and put thereto two ounces of fine ſugar, and two ſpoone-fulls of white wine vinegar, let the party drinke every morning foure ſpoonefulls thereof and walke upon it.

To increaſe a womans milke, you ſhall boile in ſtrong poſſet-ale good ſtore of *Colworts*, and cauſe her to drink every meale of the ſame: alſo if ſhee uſe to eat boyled *Colworts* with her meat, it will wonderfully increaſe her milke. To increaſe womans milke

To dry up womens milke, take red ſage, and having ſtampt it and ſtrained the juyce from the ſame, adde thereunto as much wine vinegar, and ſtirre them well together, then warming it on a flat diſh over a few coals ſteepe therein a ſheete of browne paper, then making a hole in the midſt thereof for the nipple of the breſt to goe through, cover all the breſt over with the paper, and remove it as occaſion ſhall ſerve, but be very carefull it bee layd very hot to. Some are of opinion, that for a woman to milke her breſts upon the earth will cauſe her to dry, but I referre it to triall. To dry up milke.

To helpe womens ſore breſts when they are ſwelled or elſe inflamed, Take violet leaves and cut them ſmall, and ſeeth them in milke or running water with wheate bran, or wheat bread crummes, then lay it to the ſore as hot as the party can indure it. A pultis for ſore breſts in women.

If a woman have a ſtrong and hard labour, Take foure ſpoonefulls of another womans milke, and give For eaſe in child-bearing

it the woman to drinke in her labour, and she shall bee delivered presently.

Child dead in the wombe.

If a woman by mischance have her child dead within her, she shall take *Dittander*, *Fetwort*, and *Penyroyall*, and stampe them, and take of each a spoonfull of the juyce, and mixe it with old wine, and give it her to drinke, and she shall soone be delivered without danger.

Aptnesse to conceive.

To make a woman to conceive, let her either drinke *Mugwort* steeped in wine, or else the powder thereof mixed with wine, as shall best please her tast.

Additions, To womens infirmities.

Take the powder of *Corrall* finely ground and eat it in a reare egge, and it will stay the flux.

To cease womens flowers.

Against womens termes make a pessarie of the juyce of *Mugwort*, or the water that it is sodden in and apply it, but if it be for the flux of the flowers, take the juyce of *Plantaine* and drinke it in red wine.

Against the flowers.

For the matrix

Take a *Fomentation* made of the water wherein the leaves and flowers of *Tutsan* is sodden to drinke up the superfluities of the Matrixe, it cleanseth the entrance, but this herbe would be gathered in harvest; if the woman have paine in the Matrixe, let on the fire water that *Amomum* hath been sodden in, and of the decoction make a pessary, and it will give ease.

A generall purge for a woman in child-bed.

Take two or three egges, and they must bee neither roste nor raw, but betweene both, and then take butter that salt never came in, and put it into the egges, and sup them off, and eat a piece of browne bread to them, and drinke a draught of small Ale.

To deliver the dead birth.

Take the roor of *Aristolochia rotunda* and boyle it in wine and oyle, make a *fomentation* thereof, and it helps.

To increase milke.

Take the buds and render crops of *Briony* and bolle them in broth or pottage, and let the woman eat thereof, it is soveraigne.

Take *Mugwort*, *Motherwort*, and *Mints*, the quantity of a handfull in all, ſeeth them together in a pint of *malmeſey*, and give her to drinke thereof two or three ſpoonfulls at a time; and it will appeaſe her ſwooning. For a woman that is new brought in bed and ſwooneth much.

Take *Henbane* ſtamped and mixt with vinegar and apply it plaiſterwiſe over all the forehead, and it will cauſe ſleepe. To provoke ſleepe.

Take *Sage*, *Smallage*, *Mallowes*, and *Plantaine*, of each an handful, beat them all wel in a morter, then put unto them oatmeale and milke, and ſpread it on a fine linnen cloth an inch thicke, and lay it to the breſt or breſts: or otherwiſe take white bread Leaven and ſtraine it with creame, and put thereto two or three yolkes of egges, ſalt, oyle, or oyle of *Roſes*, and put it upon a ſoft fire till it be warme, and ſo apply it to the breſt. For ſore breſts.

For Morphew, whether it be white or blacke, take of the *Litharge* of gold a dram, of unwrought brimſtone two drams, beat them into fine powder, then take of the oyle of *Roſes*, and *Swines* greaſe, of each a like quantity, and grinde them all together with halfe a dram of *Camphire* and a little vinegar, and annoint the ſame therewith morning and evening. For Morphew of both kinds.

To breeed haire, take Southern-wood and burne it to aſhes, and mixe it well with common oyle, then annoint the bald place therewith morning and evening, and it will breed haire exceedingly. To breed haire

For the Gout, take *Ariſtolochia rotunda*, *Althea*, *Betony*, and the rootes of wilde *Neepe*, and the roots of the wilde *docke* cut in peeces after the upper Rind is taken away, of each a like quantity, boile them all in running water till they be ſoft and thicke: then ſtampe them in a morter as ſmall as may be, and put thereto a little quantity of chimney ſoot, and a pint or better of new *milke* For the Gout.

of

of a Cow which is all of one intire colour, and as much of the urine of a man that is fasting, and having stirred them all well together, boile them once againe on the fire, then as hot as the party can suffer it, apply it to the grieved place, and it will give him ease.

For the Sciatica.

For the *Sciatica*, take of mustard-seed a good handfull, and as much of white honey, and as much in weight of figs, and crummes of white bread halfe so much, then with strong vinegar beat it in a morter till it come unto a salve, then apply it unto the grieved place and it will give the grieved party ease, so will also a plaister of *Oxicrotium*, if it be continually warme upon the same.

For any paine or swelling, or the stinging of Venomous beasts.

To helpe all manner of swellings or aches, in what part of the body soever it be, or the stinging of any venomous beast, as *Adder*, *Snake*, or such like: take *Horehound*, *Smallage*, *Porrets*, small *Mallowes*, and wild *tansy*, of each a like quantity, and bruise them or cut them small: then seeth them all together in a pan with milk, *oatmeale*, and as much Sheepes suet, or Deares suet as an Hens egge, and let it boile till it be a thicke plaister, then lay it upon a blew woollen cloth, and lay it to the griefe as hot as one can suffer it.

For swellings in the legs. or feet.

For any swelling in the legges or feete, take a good handfull of water Cresses and shred them small, and put them in an earthen pot, and put thereto thicke Wine Lees, and wheat bran, and Sheeps suet, of each of them a like quantity, and let them boile together untill they be thicke, then take a linnen cloth, & binde it about the sore & swelling as hot as the party grieved can indure it, and let it remaine on a whole night & a day without any removing, and when you take it away, lay to it a fresh plaister, hot, as before, and it will take away both the

paine

paine and the ſwelling. Other Chirurgions for this griefe take honey and beere and heat them together, and therwith bath the ſwelling both morning and evening.

To waſh any ſore or Vlcer, take running water and *Bolearmoniacke* and *Camphire*, and boile them together, and dip in a cloth, and lay it to the ſore as hot as may be indured: alſo *Plantaine* water is good to kill the heat of any ſore: or if you take Woodbine leaves and bruiſe them ſmall, it will heale a ſore; or if you waſh a ſore with verjuyce, that hath beene burnt or ſcalded, it is a preſent remedy. A water to waſh a ſore with.

There bee divers others which for this griefe take the greene of Gooſe dung and boile it in freſh butter. then ſtraine it very cleane and uſe it. Alſo *Sallet-oyle* and Snow water beaten together will cure any ſcald or burning. A pultis for a ſore.

To cure any old ſore how grievous ſoever it bee, take of new milke three quarts, a good handfull of *Plantain*, and let it boile till a pint be conſumed: then adde three ounces of *Allom* made in powder, and an ounce and a halfe of white *Sugar candy* powdered. Alſo then let it boyle a little till it have hard Curd, then ſtraine it, with this warme waſh the Vlcer, and all the member about it: then dry it, and lay upon the Vlcer *unguentum Baſilicon* ſpread on lint, and your *diapalma* plaiſter over it, for this ſtrengthneth, and killeth the itch: but if you find this is not ſharpe enough, then take of milke a quart, *Allom* in powder two ounces, vinegar a ſpoonful, when the milke doth ſeeth, put in the *Allom* and vinegar: then take off the curd, and uſe the reſt as was before-ſaid, and it will cure it. For any old ſore.

For ſcabs or itch take *unguentum Populeon*, and therewith annoint the party and it will helpe, but it be more For any ſcabs or itch.

ſtrong

ſtrong and ranke, take an ounce of *Nerve-oyle*, and three peny-worth of *Quicke-ſilver*, and beat and worke them together, untill you ſee that aſſuredly the *Quick-ſilver* is killd, then let the party annoynt therewith the palmes of his hands, the boughs at his elbowes, his arme-pits and hams, and it will cure all his body.

For the Leproſie. To cure the Leproſie, take the juyce of *Colworts*, and mixe it with *Allom* and ſtrong Ale, and annoint the Leaper therewith morning and evening, and it will cleanſe him wonderfully, eſpecially if hee be purged firſt, and have ſome part of his corrupt bloud taken away.

To take away pimples. To take away either pimples from the face, or any other part of the body, take Virgin wax, and *Sperma ceti*, of each a like quantity, and boile them together, and dip in a fine Linen cloth, and as it cooles dip it well of both ſides, then lay it upon another faire cloth upon a table, and then fold up a cloth in your hands, and all to ſlight it with the cloth, then take as much as will cover the grieved place.

Prvie parts burnt. If any man have his privie parts burnt, take the aſhes of a fine Linen cloth in good quantity, and put it into the former oyle of egges, and annoint the ſore member therewith, and it will cure it.

For any burning. For any burning, take ſixe new layd egges and roaſt them very hard, and take out the yolkes thereof, and put them into an earthen pot, and ſet it over the fire on hot embers, and then whil'ſt the egges looke blacke, ſtirre them with a ſlice till they come to an oyle, which oyle take and clarifie and put it into a glaſſe by it ſelfe, and therewith annoint any burning, and it will cure it.

For any ſcalding. For any ſcalding with hot water, oyle or otherwiſe, take good creame, & ſet it on the fire, and put into it the greene which growes on a ſtone wall, take alſo *yarrow*,

the

the greene of elder barke and fire graſſe, and chop them ſmall, then put them into the creame, and ſtirre it well till it come to an oyle ſalve, then ſtraine it and annoynt the ſore with it.

A pultis to dry a ſore.

To dry up any ſore, take *Swallage*, *Groundſill*, *wilde mallowes* and *violet leaves*: chop them ſmall and boyle them in milke with bruiſed *Oatemeale* and ſheepes ſuet, and ſo apply it to the ſore.

To eate away dead fleſh.

To eate away dead fleſh, take *Stubble-wort*, and fold it up in a red docke leafe, or red wort leafe, and ſo roſt it in the hot embers and lay it hot to any ſore, and it will fret away all the dead fleſh, or otherwiſe, if you ſtrew upon the ſore a little Precipitate, it will eate away the dead fleſh.

A water to heale wounds.

To make a water to heale all manner of wounds, you ſhall take *Iuph-wort* flowers, leaves and roots, and in *March* or *Aprill* when the flowers are at the beſt, diſtill it, then with that water bath the wound, and lay a linnen cloth well therewith in the wound, and it will heale it.

To heale any wound.

To heale any wound or cut in any fleſh or part of the body: Firſt if it bee fit to be ſticht, ſtich it up, and then take *Vnguentum aurum*, and lay it upon a pleagant of lint as big as the wound, and then over it lay a *diminium* plaiſter made of Sallet oyle and red lead, and ſo dreſſe it at leaſt once in foure and twenty houres, but if it bee a hollow wound, as ſome thruſt in the body or other members, then you ſhall take *Balſamum cephalicum*, and warming it on a chaffing diſh and coales, dip the tent therein and ſo put it into the wound, then lay your plaiſter of *diminium* over it, and doe thus at leaſt once a day till it be whole.

For ſinewes cut or ſhrunk.

If a mans ſinewes bee cut or ſhrunke, he ſhall goe to the roote of the wilde neepe which is like woodbine, and

and make a hole in the midst of the roote, then cover it well againe that no ayre goe out nor in, nor raine, nor other moysture: thus let it abide a day and a night, then go and open it, and you shall finde therein a certaine liquor: then take out the lyquor and put it into a cleane glasse, and doe thus every day whilst you finde any moysture in the hole; and this must onely be done in the moneths of *April* and *May*: then annoynt the sore therewith against the fire; then wet a linnen cloath in the same liquor, and lap it about the sore, and the vertue will soone be perceived.

To break any impostume.

To breake any Impostume; and to ripe it onely, take the greene *Melilot* plaister, and lay it thereunto, and it is sufficient.

Additions.

☞ Two generall infirmities of Surgery, and first of burnings and scalding: For burning, or scalding, with eyther Lyquor or Gunpouder.

Take *Plantaine* water, or *Sallet Oyle* and running water beaten together, and therewith annoynt the sore with a feather, till the fire be taken out, then take the white of eggs, and beate them to oyle, which done, take a Hare skinne and clip the haire into the oyle, and make it as thick as you may spread it upon a fine linnen cloath, and so lay it upon the sore, and remove it not, untill it bee whole, and if any rise up of it selfe, clip it away with your sheares, and if it be not perfectly whole, then take a little of the oyntment and lay it unto the same place againe: otherwise take halfe a bushell of Glovers shreads of all sorts, and so much of running water as shall bee thought convenient to seeth them, and put thereto a quarter of a pound of Barrowes grease, and then take halfe a bushell of the doune of Cats tailes; and boyle them altogether, continually stirring them, untill they be sodden that they may bee strayned into an earthen pot or glasse, and with it annoynt the sore.

Or

Or elſe take of *Caprefolii*, *Mouſeare*, *ground-Ivy*, and *Hewsdung* of the reddeſt of or the yelloweſt, and fry them with *May-butter* altogether untill it bee browne, then ſtraine it through a cleane cloth, and annoynt the ſore therewith.

For burnings or ſcaldings on the face.

Take the middle rinde of the Elme tree, and lay it two or three houres in faire running water till it waxe ropy like glew, and then annoint the ſore therewith: Or otherwiſe, take ſheepes tallow and ſheepes dung, and mixe them together till they come to a ſalve, and then apply it to the ſore.

An oyntment for burning.

Take *Plantine* leaves, *daiſie* leaves, the greene barke of *Elders*, and greene *Germaunders*, ſtampe them altogether with freſh butter or with oyle, then ſtraine it through a linnen cloath, and with a feather annoint the ſore till it be whole.

Take of *oyle Olive* a pinte, *Turpentine* a pound, unwrought wax halfe a pound, *Roſen* a quarter of a pound, ſheepes ſuet two pound, then take of *Orpents*, *Smallage*, *Ragwort*, *Plantine*, and *Sicklewort*, of each a good handfull, chop all the hearbes very ſmall, and boyle them in a pan altogether upon a ſoaking fire, and ſtirre them exceeding much till they be well incorporate together, then take it from the fire and ſtraine all through a ſtrong canvaſſe cloth into cleane pots or glaſſes, and uſe it as your occaſion ſhall ſerve, either to annoynt, taint, or playſter.

Vlcers and ſores.

A ſalve for any old ſore.

Or otherwiſe take *Poplar* buds, and *Elder* buds, ſtampe and ſtraine them, then put thereto a little Venice-turpentine, Waxe, and Roſin, and ſo boyle them together, and therewith dreſſe the ſore, or elſe take two handfull of plantaine leaves, bray them ſmall, and ſtraine out the iuice, then put to it as much womans milke, a

ſpoon-

ſpoonefull of hony, a yolke of an egge, and as much wheat flowre as you thinke will bring it to a ſalve, then make a plaiſter thereof and lay it unto the ſore, renewing it once in foure and twenty houres.

To take away dead fleſh.

Take an ounce of *Vnguentum Apoſtolorum*, and an ounce of *Vnguentum Aegyptiacum*, and put them together in a pot, being firſt well wrought together in a bladder, and if the fleſh be weake, put to it a little fine white ſugar, and therewith dreſſe the ſore, or otherwiſe take onely *Precipitate* in fine pouder, and ſtrew it on the ſore.

A water for a ſore.

Take a gallon of Smiths ſleacke water, two handfuls of ſage, a pinte of hony, a quart of ale, two ounces of Allome, and a little white *copporas*, ſeeth them all together till halfe be conſumed, then ſtraine it, and put it into a cleane veſſell, and therewith waſh the ſore. Or otherwiſe, take cleane running water and put therein *roch allom* and *madder*, and let them boyle till the *allom* and the *madder* bee conſumed, then take the cleareſt of the water and therewith waſh the ſore.

Or elſe take *Sage*, *Fennell*, and *cinquefoyle*, of each a good handfull, boyle them in a gallon of running water till they be tender, then ſtraine the liquor from the herbs, and put to it a quarter of a pound of roch *allom*, and let it ſeeth againe a little till the *allom* bee melted, then take it from the fire and uſe it, thus, dip lint in it warme and lay it to the ſore, and if it bee hollow apply more lint, then make a little bolſter of linnen cloth, and wet it well in the water, then wring out the water, and ſo bind on the bolſter cloſe.

A blacke plaiſter to heale old ſores and kill inflammations.

Take a pinte of ſallet oyle and put into it ſixe ounces of red lead, and a little ceruſe or white lead, then ſet it over a gentle fire, and let it boyle a long ſeaſon ſtirring it

it well till it be stiffe, which you shall try in this order; let it drop from your sticke or slice upon the bottome of a saucer, and so stand until it be cold, and then if it be well boiled, it will be stiffe and very blacke, then take it off, and let it stand a little, and after straine it thorow a cloth into a Bason, but first annoynt the Bason with Sallet oyle, and also your fingers, and so make it up in rolls plaisterwise, and spread it and apply it as occasion shall serve.

An oyntment to ripen sores.

Take *Mallowes* and *Beets*, and seethe them in water, then dry away the water from them, and beate the herbs well with old Boares grease, and so apply it unto the Apostume hot.

For the stinging of any Adder or venomous thing.

Take a handfull of *Rue*, and stamp it with rusty Bacon till it come to a perfect salve, and therewith dresse the sore till it be whole.

For any venoming.

If the party be outwardly venomed, take *Sage* and bruise it well and apply it unto the sore, renewing it at least twice a day, but if it be inwardly, then let the party drinke the juyce of *Sage* either in Wine or Ale morning and evening.

For a Ringworme.

Take *Selladine* early in the morning, and bruise it well, and then apply it to the sore, and renewing it twice or thrice a day.

For the itch.

Take of *Campheire* one dramme, of *Quicke-silver* foure pennyworth killed well with Vinegar, then mixe it with two pennyworth of oyle *de bay*, and therewith annoynt the body. Or otherwise take red *Onyons* and seethe them in running water a good while, then bruise the *onyons* small, and with the water they were sodden in, straine them in, then wash the infected place with the same.

Take a great quantity of the herbe *Bennet*, and as much

much of red *nettles*, pound them well and straine them, and with the juyce wash the patient naked before the fire, and so let it drinke in and wash him againe, and doe soe divers daies till he be whole.

For the dryed scab.

To kill the itch or tetter serpago.

Take a penyworth of white *copperas*, and as much greene *copperas*, a quarter of an ounce of white *Mercury*, a halfepeny-worth of *Allom* and burne it, and set all over the fire with a pint of faire water, and a quarter of a pint of wine Vinegar, boyle all these together till they come to halfe a pint, and then annoint the sore therewith.

To take away the scarres of the small poxe.

Take *Barrowes* grease a pretty quantity, and take an apple and pare it, and take the chore cleane out, then chop your apple and your *Barrowes* grease together, and set it over the fire, that it may melt, but not boyle, then take it from the fire, and put thereto a pretty quantity of Rose-water, and stirre all together till it be cold, and keepe it in a cleane vessell, and then annoynt the face therewith.

For the French or Spanish Poxe.

Take *quicke-silver*, and kill it with fasting spittle, then take *verdigrease*, *Arabicke*, *Turpentine*, *Oyle olive*, and *Populion*, and mixe them together to one entire oyntment, and annoynt the sores therewith, and keepe the party exceeding warme. Or otherwise, take of *Allom* burned, of *Rossin*, *Frankincense*, *Populion*, oyle of *Roses*, *Oyle de bay*, *Oyle olive*, greene *Copperas*, *Verdigrease*, *white Leade*, *Mercury sublimate* of each a pretty quantity, but of *Allom* most, then beat to powder the simples that are hard, and melt your oyles, and cast in your powders and stirre all well together, then striane them through a cloth, & apply it warme to the sores; or else take of *Capons* grease that hath toucht no water, the juyce of *Rue* and the fine powder of *Pepper*, and mixe them together to an oynt-

ment

ment, and apply it round about the sores, but let it not come into the sores, and it will dry them up.

To put out the French or Spanish Poxe.

Take of *Treakle* a halfepenyworth, of long *Pepper* as much, and of *graines* as much, a little *ginger*, and a little quantity of *Licoras*, warme them with strong ale, and let the party drinke it off, and lie downe in his bed and take a good sweare: and then when the sores arise, use some of the oyntment before rehearsed.

To make the scabs of the French Poxe to fall away.

Take the juyce of red *Fennell*, and the juyce of *Sengreene* and stone hony, and mixe them very well together till it be thicke, and with it annoynt the party, but before you doe annoynt him you shall make this water. Take *Sage*, and seeth it in very faire water from a gallon to a pottle, and put therein a quantity of hony and some Allom, and let them boyle a little together; when you have straained the herbs from the water, then put in your hony and your allom, and therewith wash the poxe first, and let it dry in well, and then lay on the aforesaid oyntment.

Additions, to greene wounds.

Take the oyle of the white of an egge, wheat-flower, a little hony, and venice *Turpentine*, take and stirre all these together, and so use it about the wound, but not within, and if the wound doe bleed, then adde to this salve a little quantity of *Bolearmoniak*.

A defensitive for a greene wound.

Take *Apoponax* and *Galbanum*, of each an ounce, *Ammoniacum*, and *Bedlynd*, of each two ounces, of *Leathergie* of gold one pound and a halfe, new waxe halfe a pound, *Lapis Calaminaris* one ounce, *Turpentine* foure ounces, *Myrrh* two ounces, *Oyle de bay* one ounce, *Thusse* one ounce, *Aristolchia*-roots two ounces, oyle of *Roses* two ounces, *sallet-oyle* two pound, all the hard simples must be beaten to fine powder and searsed, take also

A salve for a green wound.

three pints of right Wine vinegar, and put your foure gums into the vinegar a whole day before, till the gums be dissolved, then set it over the fire, and let it boyle very softly untill your vinegar be as good as boyled away, then take an earthen pot with a wide mouth, and put your oyle in and your waxe, but your Wake must be scraped before you put it in, then by a little at once put in your *Lethargie* and stirre it exceedingly, then put in all your gums and all the rest, but let your *Turpentine* be last, and so let it boyle till you see it grow to be thicke, then poure it into a Bason of water, and worke it with oile of *Roses* for sticking unto your hands, and make it up in rolls plaisterwise, and here is to be noted, that your oyle of *Roses* must not be boyled with the rest, but after it is taken from the fire a little before the *Turpentine*.

A water to heal any greene wound, cut, or sore.

Take three good handfulls of *Sage*, and as much of *Hony-suckle* leaves, and the flowers cleane picked, then take one pound of Roach *allom*, and a quarter of a pound of right English-hony clarified, halfe a penny-worth of graines, and two gallons of running Water, then put all the said things into the water, and let them seeth till halfe be consumed, then take it from the fire till it be almost cold, and straine it thorow a cleane cloth, and put it up in a glasse, then either on salat or pleasant use it as you have occasion.

To staunch blood, and draw sinewes togethe.

Take a quart of Rie flower and temper it with running water, and make dough thereof, then according to the bignesse of the wound lay it in with the *Turpentine* plaister, before rehearsed, over it, and every dressing make it lesse and lesse till the wound be closed.

A made oyle for shrinking of sinewes.

Take a quart of *Neats-foot-oyle*, a quart of Oxe-gall a quart of *Aquavitæ*, and a quart of rose-water, a hand-

full

full of Roſemary ſtrypt, and boyle all theſe together till halfe be conſumed, then preſſe and ſtraine it, and uſe it according as you finde occaſion.

To make oyle of Nutmegs.

Take honey, pitch and butter, and ſeeth them together, and annoynt the hurt againſt the fire, and rent the ſore with the ſame.

For pricking with a thorne.

Take grounſell and ſtampe it, and ſeeth it with ſweet Milke till it be thicke, then temper it with blacke Sope, and lay it to the ſore.

To gather fleſh in wounds.

Take Roſin a quarter of a pound, of Waxe three ounces, of oyle of Roſes one ounce and a halfe; ſeeth all them together in a pint of white Wine till it come to skimming, then take it from the fire, & put thereto two ounces of Venice *Turpentine*, and apply it to the wound or ſore.

Additions, for ache or ſwellings.

Take Muſtard made with ſtrong Vinegar, the crums of browne bread, with a quantity of Honey & ſixe Figgs mixt, temper all together well, and lay it upon a cloth playſterwiſe, put a thinne cloth betweene the playſter and the fleſh, & lay it to the place grieved as oft as need requires.

For the Sciatica.

A yellow ſeare-cloth for any paine or ſwelling.

Take a pound of fine Roſin, of *Oyle de bay* two ounces, of *Populion* as much, of *Frankincenſe* halfe a pound, of oyle *Spyk* two ounces, of oyle of *Camomile* two ounces, of oyle of *Roſes* two ounces, of *Waxe* halfe a pound, of *Turpentine* a quarter of a pound, melt them and ſtirre them well together, and then dip linnen clothes therein, and apply the ſeare-cloth as you ſhall have occaſion, and note the more oyle you uſe, the more ſupler the ſeare-cloath is, and the leſſe oyle the ſtiffer it will be.

For bruiſes ſwelled.

Take a little blacke Sope, Salt, and Honey, and beate them well together, and ſpread it on a browne paper & apply it to the bruiſe.

Take *mallowes* and ſeeth them in the dregges of good *Ale* or *Milke*, and make a plaiſter thereof, and apply it to the place ſwelled.

For ſwelled legs.

For any ache. Take in the moneth of May *Hemlocke*, and bruiſe it well and put it into an earthen pot, and put thereunto a pint of *Sallet oyle* and ſet it in the Sunne till it be all one ſubſtance, then annoynt the ache therewith.

A playſter for any paine in the joynts. Take halfe a pound of unwrought waxe, as much Roſin, one ounce of *galbanum*, a quarter of a pound of *Litharge* of gold, three quarters of white *Leade*, beaten to pouder, and ſearſt, then take a pinte of *Neates foote oyle*, & ſet it on the fire in a ſmall veſſell which may containe the reſt, and when it is all moulten, then put in the pouders and ſtirre it faſt with a ſlice, and try it upon the bottome of a ſaucer, when it beginneth to be ſomewhat hard, then take it from the fire, & annoynt a faire board with *Neates foote oyle* and as you may handle it for heate, worke it up in roules, & it will keepe five or ſixe yeeres, being wrapped up cloſe in papers: and when you will uſe it, ſpread of it thin upon new Lockram or Leather ſomewhat bigger then the griefe, and ſo if the griefe remove follow it, renewing it morning and evening, & let it be ſomewhat warme when it is laid on, and beware of taking cold, and drinking hot Wines.

Additions.

To griefe in the bones. Take foure or five yolkes of egges hard ſodden or roſted, and take the branches of great *Mercurie*, and the berries in Summer, and in Winter the rootes, and bray all well together in a morter with ſheepes milke, and then fry it untill it be very thicke, and ſo make a playſter thereof, and lay it about the ſore, and it will take away both paine and ſwelling.

For bones out of joynt, or ſinewes ſprung or ſtrained.

A bath for broken joynts. Take a gallond of ſtanding lye, two toſſes of *Plantain* and *knot-graſſe*, of each two handfuls, of *worme-pond*, and

comfrey,

comfrey, of each a handfull, and boile all theeſe together in the lye a good while, and when it is lukewarm bath the broken member therewith, and take the buds of *Elder* gathered in March, and ſtripped downeward and a litte boyle them in water, then eate them in oyle and very little wine Vinegar, a good quantity at a time in the morning ever before meat, or an houre before the Patient goe to dinner, and it much availes to the knitting of bones.

A generall bath for cleaning the skin, and comforting the body.

Take *Roſemary*, *Fetherfew*, *Orgaine*, *Pellitory* of the wall, *Fennell*, *Mallowes*, *Violet-leaves*, and *Nettles*; boyle all theſe together, and when it is well ſodden put to it two or three gallons of Milke, then let the party ſtand or ſit in it an houre or two, the bath reaching up to the ſtomack, and when they come out they muſt goe to bed & ſweat, beware taking of cold.

A ſoveraine helpe for broken bones.

Make a playſter of Wheate-flower and the white of Egges, and ſpread it on a double linnen cloth, & lay the playſter on an even board, & lay the broken limb thereon, and ſet it even according to nature, and lap the playſter about it, and ſplint it, and give him to drinke *Knitwort* the juyce thereof twice & no more, for the third time it will unknit, but give him to drinke nine daies each day twice the juce of *Comfrey*, *Daiſie*, and *Oſwand* in ſtale Ale and it ſhall knit it, and let the foreſayd playſter lye to ten daies at the leaſt, and when you take it away doe thus, take *Hore-hound*, red *Fennell*, *Hounds tongue*, *Wallwort*, and *Pellitory*, and ſeeth them, then unroule the member and take away the ſplint, and then bathe the linnen and the plaiſter about the member in this bath, untill it have ſoakt ſo long that it come gently away of it ſelfe, then take the aforeſayd plaiſter and lay thereto five or ſixe daies very hot, and let each plaiſter lye a day

and a night and alwaies splint it well, and after cherish it with the oyntments before rehearsed, for broken bones, and keepe the party from unwholsome meates & drinks till he be whole, and if the hurt be on his arme let him beare a ball of greene hearbs in his hand to prevent the shrinking of the hand and sinewes.

For any Fever. Take *Sage*, *Ragwort*, *Tarrow*, unset *Leekes*, of each a like quantity, stampe them with bay Salt and apply them to the wrests of the hands.

To expell heat in a Fever. Blanch Almonds in the cold water, and make milke of them (but it must not seeth) then put to it Sugar, and in the extremity of heate, see that you drinke thereof.

The royall medicine for Fevers. Take three spoonefuls of Ale and a little *Saffron*, and bruise and straine it thereto, then adde a quarter of a spoonefull of fine *Treacle* and mixe it together, and drink it when the fit comes.

Another. Take two roots of *Crow-foot* that growes in a marish gound, which have no little rootes about them, to the number of twenty or more, and a little of the Earth that is about them and doe not wash them, and adde a little quantity of Salt, and mixe all well together, and lay it on linnen clothes, and bind it about your thumbs betwixt the first and the neather joynt, and let it lie nine daies unremoved, and it will expell the Fever.

An approoved Medicine for the greatest Laske or Fluxe.

☞ Take a right *Pomewater* the greatest you can get, or else two little ones, roast them very tender to pap, then take away the skinne and the core and use only the pap, and the like quantity of chalke finely scraped, mixe them both together upon a Trencher before the fire, and

worke

worke them well to a playster, then spread it upon a linnen cloth warmed very hot as may be suffred, and so bind it unto the navill for twenty foure houres, use this medicine twice or thrice or more, untill the Laske be stayed.

To make the oyle of *Swallowes*, take *Lavender cotton, spike, Knot-grasse, Ribwort, Balme, Valerian, Rosemary-tops, Woodbine tops, Vine-strings, French-mallowes*, the tops of *Alecost, Strawberry strings, Tansie, Plantaine, Walnut-tree-leaves*, the tops of young *Baies, Isop, Water-feaves, Sage*, of vertue, fine Roman *Wormwood*, of each of them a handfull, *Camomile* and red *Roses*, of each two handfull, twenty quicke *Swallowes*, and beate them altogether in a great morter, and put to them a quart of *Neats foot-oyle*, or May butter, and grind them all well together with two ounces of Cloves well beaten, then put them together in an earthen pot, and stop it very close that no ayre come into it, & let it nine dayes in a Seller or cold place, then open your pot and put into it halfe a pound of white or yellow Waxe cut very small, and a pint of oyle of butter, then set your pot close stopped into a pan of water, and let it boyle sixe or eight houres, and then straine it: this oyle is exceeding soveraine for any broken bones, bones out of joynt, or any paine or griefe eyther in the bones or sinewes.

Of Oyle of Swallowes.

To make oyle of *Camomile*, take a quart of *Sallet oyle* & put it into a glasse, then take a handfull of *Camomile* and bruise it, and put it into the oyle, and let them stand in the same twelue daies, onely you must shift it every three daies, that is to straine it from the old *Camomile*, and put in as much of new, and that oyle is very soveraine for any griefe proceeding from cold causes.

To make oyle of Camomile.

To

To make oyle of Lavender.

To make oyle of *Lavender* take a pint of *Sallet oyle* and put it into a glasse, then put to it a handfull of *Lavender*, and let it stand in the same twelve daies, and use it in all respects as you did your oyle of *Camomile*.

To make smooth hands.

To make an oyle which shall make the skinne of the hands very smooth, take *Almonds* and beat them to oyle, then take whole *Cloves*, and put them both together into a glasse, and set it in the Sunne five or six daies, then strayne it, and with the same annoynt your hands every night when you goe to bed, otherwise as you have convenient leasure.

To make Dr. *Stevens* water.

To make that soveraigne water which was first invented by Doctor *Stevens*, in the same forme as he delivered the Receite to the Archbishop of *Canterbury*, a little before the death of the sayd Doctor. Take a gallond of good Gascoyne wine, then take *Ginger*, *Galingale*, *Cinnamon*, *Nutmegs*, *Graines*, *Cloves*, bruised, *Fennell-seede*, *Carraway-seeds*, *Coriander*, of every of them a like quantity, that is to say, a dramme: Then take *Sage*, *wild Marjoram*, *Penny-royall*, *Mints*, *red Roses*, *Time*, *Pellitory*, *Rosemary*, *white Time*, *Camomile*, *Lavender*, of each of them a handfull, then bray the spices small, and bruise the hearbs and put all into the Wine, and let it stand so twelve houres, only stirre it divers times, then distill it by a Lymbecke, and keepe the first water by it selfe, for that is the best, then keepe the second water, for that is good, and for the last neglect it not, for it is very wholsome though the worst of the three. Now for the vertue of this water, it is this, it comforteth the spirits and vitall parts, and helpeth all inward diseases that come of cold, it is good against the shaking of the palsie, and cureth the contraction of sinnews, and helpeth the conception of women that be barraine, it killeth the wormes in the body, it cureth the

cold

cold Cough, it helpeth the tooth-ach, it comforteth the ſtomacke, and cureth the old dropſy, it helpeth the ſtone in the bladder and in the reines, it helpeth a ſtinking breath: And whoſoever uſeth this water moderately and not too often, preſerveth him in good liking, and will make him ſeeme young in old age. With this water Doctor *Steevens* preſerved his owne life untill ſuch extreame age, that he could neither goe nor ride, and he continued his life being bed-rid five yeeres, when other Phyſitions did judge he could not live one yeere, when he did confeſſe a little before his death, ſaying: that if he were ſicke at any time, he never uſed any thing but this water onely: And alſo the Archbiſhop of *Canterbury* uſed it, and found ſuch goodneſſe in it, that he lived till he was not able to drinke of a cup, but ſucked his drinke through a hollow pipe of ſilver. This water will be much the better if it be ſet in the Sunne.

A reſtorative of Roſaſolis.

To make a cordiall *roſaſolis*, take *roſaſolis*, & in any wiſe touch not the leaves thereof in the gathering, nor waſh it, take thereof foure good handfuls, then take two good pints of *Aquavitæ*, and put them both in a glaſſe or pewter pot of three or foure pints, and then ſtop the ſame hard and juſt, and ſo let it ſtand three daies and three nights, and the third day ſtraine it through a cleane cloth into another glaſſe or pewter pot, and put thereto halfe a pound of *Sugar* beaten ſmall, foure ounces of fine *Licoras* beaten into powder, halfe a pound of ſound Dates the ſtones being taken out, and cut them & make them cleane, and then mince them ſmall, and make all theſe together and ſtop the glaſſe or pot cloſe and ſet, & after diſtill it through a Lymbecke, then drinke of it at night to bedward halfe a ſpoonefull with Ale or Beere, but

but Ale is the better, as much as the morning fasting for there is not the weakest body in the world that wants nature or strength, or that is in a consumption, but it will restore him againe, and cause him to be strong and lusty, and to have a marvailous hungry stomacke, provided always that this *rosefolium* be gathered (as nye as possibly you can,) at the full of the Moone when the Sunne lookes before noone, and let the roots of them be cut away.

Additions. to the Oyles. To make oyle of Roses or Violets.

Take the flowers of Roses or Violets and breake them small and put them into *Sallet oyle*, and let them stand in the same tenne or twelve daies, and then presse it. Or otherwise take a quart of oyle *Olive*, and put thereto Sixe spoonefuls of cleane water, and stirre it well with a slice, till it waxe as white as Milke, then take two pound of red Rose-leaves, and cut the white of the ends of the leaves away, and put the Roses into the oyle, and then put it into a double glasse and let it in the Sunne all the Summer time, and it is soveraine for any scalding or burning with water or oyle.

Or else take red Roses new plucked a pound or two, & cut the white ends of the leaves away, then take May butter and melt it over the fire with two pound of oyle Olive, and when it is clarified put in your roses and put it all in a vessell of glasse, or of earth, and stop it well about that no ayre enter in or out, and set it in another vessell with water and let it boyle halfe a day or more, and then take it forth and straine or presse it through a cloth, and put it into glasse bottells, this is good for all manner of unkind sears.

For a wound in the gut.

Take two or three pound of Nuts, and cut them small and bruise them well, then put them into a pan and beate them and stirre them about: which done, put them into a canvasse or strong linnen bagge, and close

them in a preſſe and preſſe them, and get out all the liquor of them, which will be like manna, then ſcrape it from the canvas bagge as much as you can with a knife, then put it into ſome veſſel of glaſſe, and ſtop it well, but ſet it not in the Sun, for it will waxe cleane of it ſelfe within ten or fifteen daies, and it is worth thrice ſo much as the Nutmegs themſelves, and the oile hath very great vertue in comforting the ſtomacke and inward parts, aſſwaging the paine of the mother and Sciatica.

To make perfect oyle of Spike.

Take the flowers of *Spike*, and waſh them only in *Oyle Olive*, and then ſtamp them well, then put them in a canvaſſe-bag, and preſſe them in a preſſe as hardly as you can, and take that which commeth out carefully, and put it into a ſtrong veſſell of glaſſe, and ſet it not in the Sun, for it will cleare of it ſelfe, and waxe faire and bright, and will have a very ſharpe odour of the *Spike*; and thus you may make oyle of other herbs of like nature, as *Lavender*, *Camomile*, and ſuch like.

To make oyle of Maſticke.

Take an ounce of *Maſticke*, and an ounce of *Olibanum* pounded as ſmall as is poſſible, and boyle them in *oyle Olive* (a quart) to a third part, then preſſe it and put it into a glaſſe, and after ten or twelve daies it will be perfect: it is exceeding good for any cold griefe.

Thus having in a ſummary manner paſſed over all the moſt phyſicall & Chyrurgicall notes which burtheneth the mind of our *English Houſe-wife*, being as much as is needfull for the preſervation of the health of her family: and having in this Chapter ſhewed all the inward vertues wherewith ſhe ſhould be adorned. I will now returne unto her more outward and active knowledges, wherein albeit the mind be as much occupied as before: yet is the body a great deale more in uſe: neither can the worke be well affected by rule or direction.

The

The English Housewifes skill in Cookery.

Chap. 2.

Of the outward and active Knowledge of the Housewife; and of her skill in Cookery; as Sallets of all sorts, with Flesh, Fish, Sawces, Pastry, Banquetting-stuffe and ordering of great feaste.

TO speake then of the outward and active Knowledges which belong unto our English Housewife, I hold the first and most principall to be a perfect skill and knowledge in Cookery, together with all the secrets belonging to the same, because it is a duty rarely belonging to a woman; and shee that is utterly ignorant therein, may not by the Lawes of strict Iustice challenge the freedome of marriage: because indeede shee can then but performe halfe her vow; for shee may love and obey, but shee cannot cherish, serve, and keepe him with that true duty which is ever expected.

She must know all Herbes.

To proceed then to this knowledge of Cookery, you shall understand, that the first step thereunto is, to have knowledge of all sorts of herbs belonging unto the Kitching, whether they be for the Pot, for Sallets, for Sauces, for Servings, or for any other seasoning, or adorning; which skill of knowledge of the herbes, she must

muſt get by her owne true labour and experience, and not by my relation, would be much too tedious, and for the uſe of them, hee ſhall ſee it in the compoſition of diſhes and meats hereafter following. She ſhall alſo know the time of the yeere, Moneth and Moone, in which all herbs are to be ſowne, and when they are in their beſt flouriſhing, that gathering all herbs in their height of goodneſſe, ſhe may have the prime uſe of the ſame. And becauſe I will inable, and not burden her memory, I will here give her a ſhort Epitomie of all that knowledge.

Her skill in the Garden.

Firſt then, let our Engliſh Houſewife know, that ſhe may at all times of the Moneth and Moone, generally ſow *Aſparagus*, *Coleworts*, *Spinage*, *Lettice*, *Parſnips*, *Radiſh*, and *Chives*.

In February, in the new of the Moone, ſhe may ſow *Spyke*, *Garlicke*, *Borage*, *Bugloſſe*, *Chervyle*, *Coriander Gourds*, *Creſſes*, *Marioram*, *Palma Chriſti*, *Flower gentle*, *white Poppy*, *Purſlan*, *Radiſh*, *Rocket*, *Roſemary*, *Sorrell*, *double Marigolds* and *Thyme*. The Moone full ſhee may ſow *Aniſſeeds* muſked, *Violets*, *Bleets*, *Skirrits*, *white Succory*, *Fennell*, and *Perſly*. The Moone old, ſow *Holy Thiſtell*, *Cole Cabadge*, *white Cole greene Cole*, *Cucumbers*, *Harts-Horne*, *Diers Graine*, *Cabadge*, *Lettice*, *Mellons*, *Onyons*, *Parſnips*, *Larkes Heele*, *Burnet* and *Leekes*.

In March the Moone new, ſow *Garlicke*, *Borrage*, *Bugloſſe*, *Chervile*, *Coriander*, *Gourds*, *Marioram*, *white Poppy*, *Purſlan*, *Radiſh*, *Sorrell*, *double Marigolds*, *Thyme*, *Violets*. At the full Moone, *Aniſeeds*, *Bleets*, *Skirrits*, *Succory*, *Fennell*, *Apples of Love*, and *Marvellous Apples*. At the wane; *Artichockes*, *Baſtil Bleſſed Thiſtle Cole Cabadge*, *white Cole*, *greene Cole*, *Citrons*, *Cucumbers*, *Harts-Horne*, *Samphire*, *Spinage*, *Gilliflowers*, *Iſſop*, *Cabadge*, *Lettice*, *Mellons*, *Mugrets*, *Onyons*, *Flower Gentill*, *Burnets*, *Leekes* and

and *Savory*. In *May*, the Moone old, sow *Blessed Thistle*. In *June*, the Moone new, sow *Gourds* and *Radishes*. The Moone old, sow *Cucumbers*, *Mellons*, *Parsnips*. In *July*, the Moone at full, sow *white Succory*; and the Moone old, sow *Cabadge*, *Lettice*. Lastly, in *August*, the Moone at full, sow *white Succory*.

Transplanting of Herbs.

Also she must know, that herbes growing of seeds, may be transplanted at all times, except *Chervile*, *Dragons*, *Spinage*, and *Persley*, which are not good being once transplanted, observing ever to transplant in moyst and rainy weather.

Choice of seeds.

Also she must know, that the choice of seeds are twofold, of which some grow best, being new, as *Cucumbers* and *Leekes*, and some being old, as *Coriander*, *Parsley*, *Savory*, *Beets*, *Organ*, *Cresses*, *Spinage* and *Poppy*, you must keep cold *Lettice*, *Artichokes*, *Basil*, *holy Thistle*, *Cabadge*, *Cole*, *Dyers*, *Graine*, and *Mellons*, fifteene daies after they put forth of the earth.

Prosperity of seeds.

Also seedes prosper better being sowne in temperate weather, than in hot, cold, or dry daies. In the Moneth of *April*, the Moone being new, sow *Marjoram*, *flowre gentile*, *Thyme*, *Violets*: in the old of the Moone, *Apples of Love*, and *marveilous apples*; and in the wane, *Artichokes*, *holy Thistle*, *Cabadge*, *Cole*, *Citrons*, *Harts horne*, *Sampire*, *Gilliflowers*, and *Parsnips*.

Gathering of seeds.

Seeds must be gathered in faire weather, at the wane of the Moone, and kept some in boxes of wood, some in bagges of leather, and some in vessells of earth, and after to be well cleansed and dryed in the Sunne or shadow: otherwise, as *Onyons*, *Chyballs* and *Leekes*, must be kept in their huskes. Lastly, thee must know, that it is best to plant in the last quarter of the Moone; to gather grafts in the last but one, and to graft two daies

after

after the charge, and thus much for her knowledge briefly of Hearbs, & how she shall have them continually for her use in the Kitchin.

It resteth now that I proceed unto Cookery it selfe, which is the dressing and ordering of meate, in good and wholesome manner; to which when our *Housewife* shall addresse herselfe, shee shall well understand, that these qualities must ever accompany it: First, she must be cleanely both in body and garments, she must have a quicke eye, a curious nose, a perfect taste, and ready eare (shee must not be butter-fingred, sweet toothed, nor faint-hearted;) for, the first will let every thing fall, the the second will consume what it should increase, and the last will loose time with too much niceneſſe. Now for the substance of the Art it selfe, I will devide it into five parts; the first, Sallats and Fricases; the second, boyled Meates and Broaths; the third, Roast meates, and Carbonadoes; the fourth Bak't meates and Pies; and the fift, Banqueting and made dishes, with other conceits and secrets. *Of Cookery and the parts thereof.*

First then to speake of Sallats, there bee some simple, and some compounded; some onely to furnish out the Table, and some both for use and adornation: your simple Sallats are Chibols pilled, washt cleane, and halfe of the greene tops cut cleane away, so served on a Fruit-dish, or Chines, Scallions, Radish-roots, boyled Carrets, Skirrets, and Turneps, with such like served up simply: also, all young Lettice, Cabage-lettice, Porslane, and divers other hearbs which may bee served simply without any thing, but a little Vinegar, Sallet-Oyle, and Sugar: Onyons boyled, and stript from their rinde, & served up with Vinegar, *Of Sallats simple and plaine.*

oyle & Pepper is a good simple Sallat, so is Samphire, Beane-cods, Sparagus, and Cucumbers, served in likewise with Oyle, Vinegar and Pepper, with a world of others, too readious to nominate.

Of compound Sallats.

Your compound Sallats, are first the young Buds and Knots of all manner of wholesome Hearbs at their first springing; as red Sage, Mints, Lettice, Violets, Marigolds, Spinage, and many other mixed together, and then served up to the Table with Vinegar, Sallat Oyle and Sugar.

☞ Another compound Sallat.

To compound an excellent Sallat, and which indeed is usuall at great feasts, and upon Princes Tables. Take a good quantity of blancht Almonds, and with your shredding Knife cut them grossely; then take as many Raisins of the Sunne cleane washt, and the stones pickt out, as many Figs shred like the Almonds, as many Capers, twice so many Olives, and as many Currants as of all the rest cleane washt: a good handfull of the small tender leaves of red Sage and Spinage: mixe all these well together with good store of Sugar, and lay them in the bottome of a great dish; then put unto them Vinegar and Oyle, and scrape more Sugar over all: then take Orenges and Lemons, and paring away the outward pilles, cut them into thinne slices, then with those slices cover the Sallat all over; which done, take the fine thinne leafe of the red Coleflower, and with them cover the Orenges & Lemons all over; then ouer those red leaves lay another course of old Olives, and the slices of wel pickled Cucumbers, together with the very inward heart of your Cabbage-lettice cut into slices; then adorne the sides of the dish, and the top of the Sallat with more slices of Lemons and Orenges, and so serve it up.

To

To make an excellent compound boyld Sallat: take of Spinage well washt, two or three handfuls, and put into it faire water, & boyle it till it be exceeding soft, & tender as pap; then put it into a Cullander and draine the water from it, which done, with the backeside of your Chopping-knife chop it, and bruse it as small as maybe: then put it into a Pipkin with a good lumpe of sweet Butter, and boyle it over againe; then take a good handfull of Currants cleane washt, and put to it, & stirre them well together; then put to as much Vinegar as will make it reasonable tart, and then with Sugar season it according to the taste of the Master of the house, and so serve it upon sippets. An excellent boyled Sallat.

Your preserved Sallats are of two kinds, either pickled, as are Cucumbers, Samphire, Purslan, Broome, and such like, or preserved with Vinegar; as Violets Primrose, Cowslops, Gillyflowers of all kinds, Broome-flowers, and for the most part any wholesome flower whatsoever. Of preserving of Sallats.

Now for the pickling of Sallats, they are only boiled and then drained from the water, spread upon a Table, and good store of Salt throwne over them, then when they are thorow cold, make a Pickle with water, Salt, and a little Vinegar; and with the same pot them up in close earthen pots, and serve them forth as occasion shall serue.

Now for preserving Sallats, you shall take any of the Flowers beforesayd after they have beene pickt cleane from their stalkes, and the white ends (of them which have any) cleane cut away, and washt and dryed, and taking a glasse pot like a Gally-pot, or for want thereof a gally-pot it selfe; and first strew a little Sugar in the bottome, then lay a layer of the Flowers, then

then cover that layer over with Sugar, then lay another layer of the Flowers, and another of Sugar; and thus doe one above another till the pot be filled, ever and anon pressing them hard downe with your hand: this done, you shall take of the best and sharpest Vinegar you can get (& if the Vinegar be distilled Vinegar, the Flowers will keepe their colours the better) and with it fill up your pot till the Vinegar swim aloft, and no more can be received; then stop up the pot close, and set them in a dry temperate place, and use them at pleasure, for they will last all the yeere.

The making of strange Sallats

Now for the compounding of Sallats of these pickled and preserved things, though they may bee served up simply of themselues, and are both good and daintie; yet for better curiosity, and the finer adorning of the Table, you shall thus use them: First, if you would set forth any red Flower that you know or have seene, you shall take your pots of preserved Gilliflowers, and suiting the colours answerable to the Flower you shall proportion it forth, and lay the shape of the Flower in a Fruit-dish; then with your Purslan leaves make the greene Coffin of the Flower, and with the Purslan stalkes, make the stalke of the Flower, and the divisions of the leaves and branches; then with the thinne slices of Cucumbers make their leaves in one proportion, jagged or otherwise: and thus you may set forth some full blowne, some halfe blowne, and some in the bud, which will be pretty and curious. And if you will set forth yellow flowers, take the pots of Primroses and Cowslops, if blew flowers then the pots of Violets, or Bugloss-flowers, and these Sallats are both for shew and use; for they are more excellent for taste then for to looke on.

Now for *Sallets* for shew onely, and the adorning and setting out of a Table with numbers of dishes, they be those which are made of *Carret* rootes of sundry colours well boiled, and cut out into many shapes and proportions, as some into knots, some in the manner of Scutchions and Armes, some like Birds, and some like wilde Beasts, according to the Art and cunning of the workeman; and these for the most part are seasoned with Vinegar, Oyle, and a little Pepper. A world of other Sallets there are, which time and experience may bring to our *House-wifes* eye, but the composition of them, and the serving of them differeth nothing from these already rehearsed.

Sallets for shew onely.

OF

Now to proceede to your Fricases, or Quelque choses, which are dishes of many compositions, and ingredients; as Flesh, Fish, Egges, Herbes, and many other things, all being prepared and made ready in a Frying pan, they are likewise of two sorts, simple and compound.

Fricases and Quelque choses.

Your simple Fricases are egges and collops fryed, whether the Collops be of Bacon, Ling, Beefe, or young Porke, the frying whereof is so ordinary, that it needeth not any relation, or the frying of any Flesh of Fish simple of it selfe with Butter or sweet Oyle.

Of simple Fricases.

To have the best Collops and egges, you shall take the whitest and youngest Bacon; and cutting away the sward, cut the Collops into thinne slices, lay them in a dish, and put hot water unto them, and so let them stand an houre or two, for that will take away the extreme saltnesse: then draine away the water cleane, and put them into a dry pewter-dish, and lay them one by one, and set them before the heate of the fire, so as they may roaste and turne them so, as they

Best Collops and Egges.

as they may toast sufficiently thorow & thorow: which done, take your egs and breake them into a dish, and put a spoonfull of vinegar unto them: then set on a cleane Skillet with faire water on the fire, and as soone as the water boyleth, put in the egges, and let them take a boile or two, then with a spoone try if they be hard enough, and then take them up, and trim them, and dry them; and then dishing up the Collops, lay the egges upon them, and so serve them up: and in this sort you may potch egges when you please, for it is the best and most wholesome.

Of the compound fricases.

Now the compound Fricases are those which consist of many things, as Tansies, Fritters, Pancakes, and any Quelquechose whatsoever, being things of great request and estimation in *France*, *Spaine*, and *Italy*, and the most curious Nations.

To make the best Tansey.

First then for making the best Tansey, you shall take a certaine number of Egges, according to the bignesse of your Frying-pan, and breake them into a dish, beating ever the white of every third egge; then with a spoon you shall cleanse away the little white Chicking-knots which sticke unto the yolkes; then with a little Creame beate them exceedingly together; then take of greene wheate blades, Violet leaves, Straw-berry leaves, *Spinage* and *Succory*, of each a little quantitie, and a few *Walnut tree* buds; chop and beate all these very well, and then straine out the juyce, and mixing it with a little more Creame, put it to the egges, and stirre all well together; then put in a few crummes of bread, fine grated bread, *Cinamon*, *Nutmegge*, and *Salt*, then put some sweet Butter into the Frying-pan, and so soone as it is dissolved or melted, put in the Tansey, and frie it browne without burning, and with a dish turne

turne it in the pan as occasion shall serve, then serve it up, having strewed good store of Sugar upon it, for to put in Sugar before will make it heavie: Some use to put of the herbe *Tansey* into it, but the *Walnut tree* buds doe give the better taste or relish; and therefore when you please for to use the one, doe not use the other.

To make the best Fritters, take a pint of Creame and warme it: then take eight egges, onely abate foure of the whites, and beat them well in a dish, and so mixe them with the Creame, then put in a little Cloves, Mace, Nutmegge and Saffron, and stirre them well together: then put in two spoonefulls of the best Ale-barme, and a little Salt, and stirre it againe: then make it thicke according to your pleasure with wheat flower: which done, let it within the aire of the fire, that it may rise and swell, which when it doth, you shall beate it in once or twice, then put into it a penny pot of Sacke: all this being done, you shall take a pound or two of very sweet seame, and put it into a pan, and set it over the fire, and when it is molten, and begins to bubble, you shall take the Fritter-batter, and setting it by you, put thicke slices of well pared Apples into the Batter; and then taking the Apples and Batter out together with a spoone, put it into the boyling Seame, and boyle your Fritters crispe and browne: And when you finde the strength of your seame consume or decay you shall renew it with more seame, and of all sorts of seame, that which is made of the Beefe suet is the best & strongest: when your Fritters are made, strow good store of Sugar and Cinamon upon them, being faire dish't, and so serve them up. The best Fritters.

To make the best Pancakes, take two or three egges and The best Pancake.

and breake them into a dish, and beate them well: then adde unto them a pretty quantity of faire running water, and beate all well together: then put in Cloves, Mace, Cinamon and Nutmeg, and season it with Salt: which done, make it thicke as you thinke good with fine Wheate-flower: then fry the cakes as thinne as may be with sweete Butter, or sweet Seame, and make them browne, and so serve them up with Sugar strowed upon them. There be some which mixe pancakes with new milke or Creame, but that makes them tough, cloying, and not crispe, pleasant and savory as running water.

Veale toasts. To make the best Veale tosts; take the kidney fat, and all of a loyne of Veale rosted, and shred as small as is possible; then take a couple of Egs and beate them very well; which done, take *Spinage, Succory, Violet leaves and Marigold-leaves*, and beate them and straine out the juyce, and mixe them with the Egs: then put it to your Veale, and stirre it exceedingly well in a dish; then put to good store of Currance cleane washt and pickt, Cloves, Mace, Cinamon, Nutmegge, Sugar and Salt, and mixe them all perfectly well together: then take a manchet, and cut it into tosts, and tost them well before the fire; then with a spoone lay it upon the tost in a good thickenesse, the Veale prepared as before-said: which done, put into your Frying pan good store of sweete Butter, and when it is well melted and very hot, put your tosts into the same with the bread side upward, and the flesh side downeward: and as soone as you see they are fryed browne, lay upon the upperside of the tostes which are bare, more of the flesh meate, and then turne them, and fry that side browne also: then take more out of the pan, and dish them up,

and strow Sugar upon them, and so serve them forth.

There be some Cookes which will doe this but upon one side of the tosts, but to doe it on both is much better; if you adde Creame it is not amisse.

To make the best Panperdy, take a dozen of Egges, and breake them, and beat them very well, then put unto them Cloves, Mace, Cinamon, Nutmeg, and good store of Sugar, with as much Salt as shall season it: then take a Mancher, and cut it into thicke slices like tostes; which done, take your Frying pan, and put into it good store of sweet Butter, and being melted lay in your slices of bread, then poure upon them one halfe of your Egges; then when that is fryed, with a dish turue your slices of bread upward, and then powre on them the other halfe of your Egges, and so turne them till both sides be browne; then dish it up, and serve it with Sugar strowed upon it. To make the panperdy.

To make a Quelquechose, which is a mixture of many things together; take the Egs and breake them, and doe away the one halfe of the whites, and after they are beaten, put to them a good quantity of sweete Creame, Currants, Cinamon, Cloves, Mace, Salt, and a little Ginger, Spinage, Endive, and Marigold flowers grossely chopt, and beat them all very well together; then take Pigs Petitoes slic't, and grossely chopt, and mixe them with the Egs, and with your hand stire them exceeding well together; then put sweete Butter in your Frying pan, and being melted, put in all the rest, and fry it browne without burning, ever and anon turning it till it be fryed enough; then dish it up upon a flat Plate, and so serve it forth. Onely herein is to be observed, that your Petitoes must be very well boyled before you put them into the Fricase. To make any quelquechose.

Additions, To the Housewifes Cookery.

And in this manner, as you make this Quequecole, so you may make any other, whether it be of flesh, small birds, sweet roots, Oysters, muskles, Cockles, Violets, Lemmons, Orenges, or any fruit, pulse, or other Sallet-herbe whatsoever, of which to speake severally were a labour infinite, because they vary with mens opinions. Onely the composition and worke is no other then this before prescribed; and who can doe these, need no further instruction for the rest. And thus much for *Sallets* and *Fricasees*.

To make Fritters.

To make Fritters another way, take flower, milke, barme, grated bread, small Raisins, Cynamon, Sugar, Cloves, Mace, Pepper, Saffron and Salt; stirre all these together very well with a strong spoone, or small Ladle; then let it stand more than a quarter of an houre, that it may rise, then beate it in againe, and thus let it rise and be beate in, twice or thrice at least; then take it and bake them in sweet and strong feame, as hath beene before shewed, and when they are served up to the table, see you strow upon them good store of Sugar, Cynamon and Ginger.

To make the best white puddings.

Take a pint of the best, thickest and sweetest creame, and boile it, then whilest it is hot, put thereunto a good quantity of faire great Oate-meale Grotes very sweete, and cleane pickt, and formerly steept in milke twelve houres at least, and let it soake in this Creame another night; then put therto at least eight yolkes of eggs, a little Pepper, Cloves, Mace, Saffron, Currants, Dates, Sugar, Salt, and great store of Swines suet, or for want thereof, great store of Beefe suet, and then fill it up in the Farmes according unto the order of good house-wiferie, and then boile them on a soft and gentle fire, and as they swell, pricke them with a great pin, or

or small Awle, to keepe them that they burſt not; and when you ſerve them to the Table (which muſt be not untill they be a day old) firſt, boile them a little, then take them out and toaſt them browne before the fire, and ſo ſerve them, trimming the edge of the diſh either with ſalt or Sugar.

Puddings of Hogs liver.

Take the Liver of a fat Hogge, and parboile it, then ſhred it ſmall, and after beate it in a morter very fine; then mixe it with the thickeſt and ſweeteſt Creame, and ſtraine it very well through an ordinary ſtrainer, then put thereto ſixe yolkes of egges, and two whites, and the grated crummes of neere-hand a penny white loafe; with good ſtore of *Currants*, *Dates*, *Cloves*, *Mace*, *Sugar*, *Saffron*, *Salt*, and the beſt *Swine* ſuet, or *Beefe* ſuet, but *Beefe* ſuet is the more wholeſome, and leſſe looſening; then after it hath ſtood a while, fill it into the Farmes, and boile them as before ſhewed: and when you ſerve them unto the table, firſt boyle them a little, then lay them on a gridyron over the coles, and broile them gently, but ſcorch them not, nor in any wiſe breake their skinnes, which is to be prevented by oft turning and toſſing them on the Gridyron, and keeping a ſlow fire.

To make bread puddings.

Take yolkes and whites of a dozen or foureteene egges, and having beat them very well, put unto them the fine powder of *Cloves*, *Mace*, *Nutmegges*, *Sugar*, *Cinamon*, *Saffron* and *Salt*; then take the quantity of two loaves of white grated Bread, *Dates* (very ſmall ſhred) and great ſtore of *Currants*, with good plenty either of *Sheepes*, *Hogges*, or *Beefe*-ſuet beaten and cut ſmall: then when all is mixt and ſtirred well together, and hath ſtood a while to ſettle, then fill it into the Farmes as hath been before ſhewed, and in like manner

boyle

boyle them, cooke them, and serve them to the Table.

Rice Puddings. Take halfe a pound of Rice, and steepe it in new milke a whole night, and in the morning draine it, and let the milke drop away: then take a quart of the best, sweetest and thickest Creame, and put the Rice into it, and boyle it a little; then set it to coole an houre or two, and after put in the yolkes of halfe a dozen Egges, a little Pepper, Cloves, Mace, Currants, Dates, Sugar, and Salt; and having mixt them well together, put in great store of Beefe Suet well beaten, and small shred, and so put it into the Farmes, and boyle them as before shewed, and serve them after a day old.

Another of Liver. Take the best Hogs Liver you can get, and boyle it extremely till it be as hard as a stone; then lay it to coole, and being cold, upon a bread-grater grate it all to powder; then sift it thorow a fine meale sive, and put to it the crummes (at least) of two penny loaves of white bread, and boyle it all in the thickest and sweetest Creame you have till it be very thicke; then let it coole, and put to it the yolks of halfe a dozen egges, a little Pepper, Cloves, Mace, Currants, Dates small shred, Cinamon, Ginger, a little Nutmeg, good store of Sugar, a little Saffron, Salt, and of Beefe and Swines suet great plenty, then fill it into the Farmes, and boyle them as before shewed.

Puddings of a Calves Mugget. Take a Calves Mugget, cleane and sweet dresst, and boyle it well; then shred it as small as is possible, then take of Strawbery leaves, of Endive, Spinage, Succory, and Sarnell of each a pretty quantity, and chop them as small as is possible, and then mixe them with the Mugget; then take the yolkes of halfe a dozen Egges, and three whites, and beate them into

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it also; and if you finde it is too stiffe, then make it thinner with a little Creame warmed on the fire; then put in a little Pepper, Cloves, Mace, Cinamon, Ginger, Sugar, Currans, Dates and Salt, and worke all together, with casting in little peeces of sweet Butter one after an other, till it have received good store of Butter, then put it up in the Calves bagge, Sheepes bagge, or Horse bagge and then boyle it well, and so serve it up.

A Blood Pudding.

Take the blood of an Hogge whilest it is warme, and steepe it in a quarte, or more, of great Oare-meale-grotes, and at the end of three daies with your hands take the Groats out of the blood, and draine them clean, then put to those Grotes more then a quart of the best Creame warm'd on the fire: then take mother of Time, Parsley, Spinnage, Succory, Endive, Sorrell and Strawberry leaves, of each a few chopt exceeding small, and mixe them with the Grotes; and also a little Fennell-seed finely beaten: then adde a little Pepper, Cloues and Mace, Salt and great store of suet finely shred, and well beaten: then therewith fill your Formes, and boyle them, as haue beene before described.

Linkes.

Take the largest of your chines of Porke, and that which is called a Liste, and first with your knife cut the leane therefrom into thinne slices, and then shread small those slices, and then spread it over the bottome of a dish or wodden platter: then take the fatte of the Chine and the Liste, and cut it in the very selfe same manner, and spread it upon the leane, and then cut more leane, and spread it upon the fatte, and this do one leane upon another, till all the Porke bee shred, observing to begin and end with the leanest: then with your sharpe knife cut it through and through

divers

divers waies, and mixe it all well together: then take good store of Sage, and shred it exceeding small, and mixe it with the flesh, then give it a good season of Pepper and Salt; then take the farmes made as long as is possible, and not cut in pieces as for Puddings, and first blow them well to make the meat slip, and then fill them: which done, with threads devide them into severall linkes as you please, then hang them up in the corner of some Chimney cleane kept, where they may take ayre of the fire, and let them dry there at least foure daies before any be eaten; and when they are served up, let them be eyther fryed or broyled on the Gridyron, or else roasted about a Capon.

Of boyld meats ordinary.

It resteth now that wee speake of boyld meates and broths, which for asmuch as our Houf-wife is intended to be generall one that can as well feed the poore as the rich, we will first begin with those ordinary wholesome boyld meates, which are of use in every good mans house: therefore to make the best ordinary Pottage, you shall take a racke of Mutton cut into pieces, or a leg of Mutton cut into pieces; for this meate and these joynts are the best; although any other joynt, or any fresh Beefe will likewise make good Pottage: and having washt your meat well, put it into a cleane pot with faire water, & set it on the fire; then take *Violet* leaves, *Succory*, *Strawberry* leaves, *Spinage*, *Langdebefe*, *Marigold*-flowers, *Scallions*, and a little *Parsly*; and choppe them very small together: then take halfe so much Oatmeale well beaten as there is Hearbs, and mixe it with the Hearbs, & chop all very well together: then when the pot is ready to boyle, scumme it very well, and then put in your Hearbs, and so let it boyle with a quicke fire

fire, ſtirring the meate oft in the pot, till the meate be boyld enough; and that the Hearbs and water are mixt together without any ſeparation, which will bee after the conſumption of more than a third part: Then ſeaſon them with Salt, and ſerve them up with the meate eyther with ſippets or without.

Some deſire to have there Pottage greene, yet no Hearbs to be ſeen in this caſe, you muſt take your Hearbs and Oat-meale, and after it is chopt, put it into a ſtone Morter, or Bowle, and with a wooden peſtell beate it exceedingly, then with ſome of the warme liquor in the pot ſtraine it as hard as may be, and ſo put it in and boyle it. Pottage without ſight of hearbs.

Others deſire to have Pottage without any hearbs at all, and them you muſt onely take Oat-meale beaten, & good ſtore of Onyons, and put them in, and boyle them together; and thus doing your muſt take a greater quantity of Oat-meale than before. Pottage without hearbs.

If you will make Pottage of the beſt and daintieſt kind, you ſhall take Mutton, Veale or Kidde, & having broke the bones, but not cut the fleſh in pieces, & waſh it, put it into a pot with faire water, after it is ready to boyle, and throughly skum'd, you ſhall put in a good handfull or two of ſmall Oate-meale: and then take whole Lettice of the beſt & moſt inward leaves, whole Spinage, Endive, Succory, & whole leaves of Coleflower, or the inward partes of white Cabage, with two or three ſlic't Onyons: and put all into the Pot and boyle them well together till the meate bee enough, and the Hearbs ſo ſoft as may be, and ſtirre them oft well together; and then ſeaſon it with Salt and as much Verjuyce as will onely turne the taſte of the Pottage; and ſo ſerve them up, covering the meate with the Pottage with whole hearbs.

whole

whole hearbes, and adorning the dish with sippets.

To make ordinary stewd broth.

To make ordinary stewd broth, you shall take a neche of Veale, or a leg, or mary-bones of Beefe, or a Pullet, or Mutton, and after the meare is washt, put it into a pot with faire water, and being ready to boyle, skumme it well: then you shall take a couple of Manchets, and paring away the crust, cut it into thicke slices, and lay them in a dish, and cover them with hot broth out of the pot: when they are steept, put them and some of the broth into a strayner, and straine it, and then put it into a pot: then take halfe a pound of Prunes, halfe a pound of Raisins, and a quarter of a pound of Currants cleane pickt and washt, with a little whole Mace, and two or three bruised Cloves, and put them into the pot, and stirre all well together, and so let them boyle till the meate bee enough, then if you will alter the colour of the broth, put in a little Turnesole, or red Saunders, and so serve it upon sippets, and the fruit upermost.

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A fine boyld meate.

To make an excellent boyled meate: take foure peeces of a racke of Mutton, and wash them cleane, and put them into a pot well scoured with faire water: then take a good quantity of Wine and Verjuyce and put into it: then slice a handfull of Onyons and put them in also and so let them boyle a good while, then take a peece of sweete Butter with Ginger and Salt and put it too also, and then make the broth thicke with grated bread, and so serve it up with sippets.

To boyle a Mallard.

To boyle a *Mallard* curiously, take the *Mallard* when it is faire dressed, washed and trust, and put it on a spit and roll it till you get the gravy out of it: then take it from the spit and boyle it, then take the best of the broth into a Pipkin, and the gravy which

you

you saved, with a piece of sweet Butter and Currants, Vinegar, Sugar, Pepper and grated bread: Thus boyle all these together, and when the Mallard is boyled sufficiently, lay it on a dish with sippets, and the broth upon it, and so serve it forth.

To make an excellent *Olepotrige*, which is the onely principall dish of boyl'd meate which is esteemed in all *Spaine*, you shall take a very large vessell, pot or kettell, and filling it with water, you shall set it on the fire, and first put in good thicke gobbets of well fed Beefe, and being ready to boyle, skumme your pot; when the Beefe is halfe boyled, you shall put in Potato-rootes, Turneps, and Skirrets: also good gobbets of the best Mutton, and the best Porke, after they have boyled a while, you shall put in the like gobbets of Venison, Red and Fallow, if you have them; then the like gobbets of Veale, Kidde and Lambe; a little space after these, the fore-parts of a fat Pigge, and a cramb'd Pullet; then put in Spinage, Endive, Succory, Marigold-leaves and flowers, Lettice, Violet-leaves, Strawberry-leaves, Bugloss, and Scallions, all whole and unchopt; then when they have boyled a while, put in a Partridge and a Chicken chopt in pieces, with Quailes, Railes, Blacke-birds, Larkes, Sparrowes, and other small birds, all being well and tenderly boyled, season up the broth with good store of Sugar, Cloves, Mace, Cynamon, Ginger and Nutmegge mixt together in a good quantity of Verjuyce and Salt, and so stir up the pot well from the bottome, then dish it up upon great Chargers, or long *Spanish* dishes made in the fashion of our *English* wooden-trayes, with good store of sippet in the bottome; then cover the meate all over with Prunes, Raisins, Currants, and blaunch'd Almonds,

To make an excellent Olepotrige.

Almonds, boyled in a thing by themselves; then cover the fruit and the whole boyled herbs, and the herbs with slices of Orenges and Lemons, and lay the rootes round about the sides of the dish, and strew good store of Sugar over all, and so serve it forth.

To make the best white broth.

To make the best white broth, whether it be with Veale, Capon, Chickens, or any other Fowle or fish: First boyle the flesh or fish by it selfe, then take the value of a quart of strong Mutton broth, or fat Kidde broth, and put it into a Pipkin by it selfe, and put into it a bunch of Time, Marjorem, Spinage, and Endive bound together; then when it seethes, put in a pretty quantity of Beefe-marrow, and the marrow of Mutton, with some whole Mace, and a few bruised Cloves; then put in a pint of White-wine with a few whole slices of Ginger; after these have boyled a while together, take blaunch'd Almonds, and having beaten them together in a morter with some of the broth, straine them and put it in also; then in another pipkin boyle Currants, Prunes, Raisins, and whole Cinamon in Verjuce and Sugar, with a few sliced Dates; and boyle them till the Verjuyce be most part consumed, or at least come to a sirrup; then draine the fruit from the sirrup, and if you see it be high coloured, make it white with sweet creame warmed, and so mixe it with your wine broth; then take out the Capon, or the other Flesh or Fish, and dish it upon in a dish; then powre the broth upon it, and lay the fruit on the top of the meat, and adorne the sides of the dish with very dainty sippets; first *Orenges*, *Lemons*, and *Sugar*, and so serve it forth to the Table.

To

To boyle any wild Fowle, as Mallard, Teale, Widgeon, or such like: First boyle the Fowle by it selfe, then take a quart of strong Mutton-broth, and put it into a pipkin, and boile it; then put into it good store of sliced Onions, a bunch of sweet pot-hearbs, and a lump of sweet Butter; after it hath boiled well, season it with Verjuice, Salt, and Sugar, and a little whole Pepper; which done, take up your Fowle and breake it up according to the fashion of carving, and sticke a few Cloves about it; then put it into the broth with Onions and there let it take a boyle or two, and so serve it and the broth forth upon sippets, some use to thicken it with toasts of bread steept and strained, but that is as please the Cooke. To boile any wild Fowle.

To boyle a legge of Mutton, or any other joynt of meate whatsoever; first after you have washt it cleane, parboile it a little, then spit it and give it halfe a dozen turnes before the fire, then draw it when it begins to drop, and presse it betweene two dishes, and save the gravy; then slash it with your knife, and give it halfe a dozen turnes more, and then presse it againe, and thus doe as often as you can force any moisture to come from it; then mixing Mutton-broth, White-wine, and Verjuice together, boyle the Mutton therein till it be tender, and that most part of the liquor is cleane consumed; then having all that while kept the gravy you tooke from the Mutton, stewing gently upon a Chaffing-dish and coales, you shall adde unto it good store of Salt, Sugar, Cinamon and Ginger, with some Lemmon slices, & a little of an Oringe pill, with a few fine white-bread-crums: then taking up the Mutton, put the remainder of the broth in, and put in likewise the gravy, To boyle a legg of Mutton.

and then serve it up with sippets, laying the Lemmon slices upermoſt, and trimming the dish about with Sugar.

An excellent way to boyle Chickens.

If you will boyle Chickens, yong Turkies, Pea-hens, or any house Fowle daintily, you shall after you have trimmed them, drawne them, truſt them, and waſht them, fill their bellies as full of Parſly as they can hold; then boyle them with Salt and Water onely till they be enough: then take a dish and put into it Verjuice, and Butter, and Salt, and when the Butter is melted, take the Parſly out of the Chickens bellies, and mince it very small, and put it to the Verjuice and Butter, and ſtirre it well together; then lay in the Chickens, and trimme the dish with ſippets, and ſo ſerve it forth.

A broth for any fresh fish.

If you will make broth for any freſh fiſh whatſoever; whether it be Pike, Breame, Carpe, Eele, Barbell, or ſuch like: you ſhall boyle Water, Verjuice and Salt together with a handfull of ſliced Onions; then you ſhall thicken it with two or three ſpoonefull of Alebarme; then put in a good quantity of whole Barberies, both branches and other, as alſo prerry ſhore of Currants: then when it is boyld enough, diſh up your Fiſh, and powre your broth unto it, laying the fruit and Onyons uppermoſt. Some to this broth will put Prunes and Dates ſlic't, but it is according to the fancy of the Cooke, or the will of the House-holder.

Thus I have from theſe few preſidents ſhewed you the true art and making of all ſorts of boild-meates, and broths; and though men may coine ſtrange names, and faine ſtrange Art, yet be aſſured ſhe that can do theſe, may make any other whatſoever; altering the taſte: by the alteration of the compounds as ſhee ſhall ſee occaſion.

occasion: And when a broth is too sweete, to sharpen it with verjuice, when too tart, to sweeten it with sugar: when flat and wallowish, to quicken it with Orenges and Lemons; and when too bitter, to make it pleasant with herbs and spices.

Additions: To boyle meats.

Take a Mallard when it is cleane dressed, washed and trust, and parboyle it in water, till it be skum'd and purified: then take it up, and put it into a Pipkin with the necke downeward, and the tayle upward, standing, as it were, upright: then fill the Pipkin halfe full with that water, in which the Mallard was parboyled, and fill up the other halfe with white Wine: then pill and slice thin a good quantity of Onyons, and put them in with whole fine herbes, according to the time of the yeere, as Lettice, Strawberry-leaves, Violet-leaves, Vine-leaves, Spinage, Endive, Succory, and such like, which have no bitter or hard taste, and a pretty quantity of currants and Dates sliced: then cover it close, and set it on a gentle fire, and let it stew, and smoare till the Herbes and Onyons be soft, and the Mallard enough: then take out the Mallard, and carve it as it were to goe to the Table; then to the Broth put a good lumpe of butter, sugar, cynamon, and if it be in Summer, so many Goose-berries as will give it a sharpe taste, but in the Winter, as much wine Vinegar, then heat it on the fire, and stirre all well together: then lay the Mallard in a dish with sippets, and poure all this broth upon it, then trim the edge of the dish with sugar, and so serve it up. And in this manner you may also smoare the hinder parts of a Hare, or a whole old Cony, being trust up close together.

A Mallard smoared, or a Haire, or old Cony.

To stew a pike.

After your Pike is drest and opened in the backe, and laid flat, as if it were to fry, then lay it in a large dish

for the purpose, able to receive it; then put as much white Wine to it, as will cover it all over; then set it on a chasing-dish and coales to boyle very gently, and if any skum arise, take it away; then put to it Currants, Sugar, Cynamon, Barbary-berries, and as many Prunes as will serve to garnish the dish; then cover it close with another dish, and let it stew till the fruit be soft, and the Pike enough; then put to it a good lumpe of sweete Butter; then with a fine skimmer take up the fish, and lay it in a cleane dish with sippets; then take a couple of yolks of Egs, the filme taken away, and beate them well together with a spoonefull or two of Creame, and as soone as the Pike is taken out, put it into the broth, and stirre it exceedingly, to keepe it from curding; then poure the broth upon the Pike, and trim the sides of the dish with Sugar, Prunes, and Barberries, slices of Orenges or Lemons, and so serve it up. And thus may you also stew Rochers, Gurnets, or almost any sea-fish, or fresh fish.

To stew a Lambs head & Purtenance.

Take a Lambs-head and Purtenance cleane washt and pickt, and put it into a Pipkin with faire water, and let it boyle, and skumme it cleane; then put in Currants and a few sliced Dates, and a bunch of the best sercing herbs tyed up together, and so let it boyle well till the meate be enough: then take up the Lambs-head and Purtenance, and put it into a cleane dish with sippets; then put in a good lumpe of Butter, and beate the yolkes of two Egges with a little Creame, and put it to the broth with Sugar, Cynamon, and a spoonefull or two of Verjuice, and whole Mace, and as many Prunes as will garnish the dish, which should be put in when it is but halfe boyl'd, and so poure it upon the Lambes-head and Purtenance, and adorne the sides of the

dish with Sugar, Prunes, Barberies, Orenges, and Lemons, and in no case forget not to season well with Salt, and so serve it up.

A breft of Mutton ſhewed

Take a very good breſt of Mutton chopt into ſundry large pieces, and when it is cleane waſht, put it into a pipkin with faire water, and ſet it on the fire to boyle; then skum it very well, then put in of the fineſt Parſneps cut into large pieces as long as ones hand, and cleane waſht and ſcrapt; then good ſtore of the beſt Onions, & all manner of ſweet pleaſant Pot-hearbs and Lettice, all groſſely chopt, & good ſtore of Pepper & Salt, and then cover it, and let it ſtew till the Mutton be enough, then take up the Mutton, and lay it in a cleane diſh with ſippets, and to the breath put a little Wine vinegar, and ſo powre it on the Mutton with the Parſneps whole, and adorne the ſides of the diſh with Sugar, and ſo ſerve it up: and as you doe with the Breſt, ſo you may doe with any other Joynt of Mutton.

To ſhew a Neats foot.

Take a Neates foote that is very well boyld (for the tenderer it is, the better it is) & cleave it in two, & with a cleane cloth dry it well from the Stout-drinke; then lay it in a deepe earthen platter, and cover it with Verd-juyce; then ſet it on a chafing-diſh and coales, and put to it a few Currants, and as many Prunes as will garniſh the diſh, then cover it, and let it boile well many times ſtiring it up with your knife, for feare it ſticke to the bottome of the diſh, then when it is ſufficiently ſtewed, which will appeare by the tendernesſe of the meat and ſoftneſſe of the fruit, then put in a good lump of Butter, great ſtore of Sugar and Cinamon, and let it boile a little after: then put it altogether into a cleane diſh with Sippets, and adorn the ſides of the diſh with Sugar and Prunes, and ſo ſerve it up.

Of Roast-meats.

To proceed then to roast meates, it is to be understood, that in the generall knowledge thereof are to be observed these few rules. First, the cleanly keeping and scowring of the spits and cobirons; next, the neate picking and washing of meat before it be spitted, then the spiteing and broaching of meate which must bee done so strongly and firmely, that the meate may by no meanes either shrinke from the spit, or else turne about the spit: and yet ever to observe, that the spit doe not goe through any principall part of the meate, but such as is of least account and estimation: and if it bee birds, or fowle which you spit, then to let the spit goe through the hollow of the body of the fowle, and so fasten it with prickes or skewers under the wings about the thighes of the fowle, and at the feete or rumpe, according to your manner of trussing and dressing them.

Observations in roast-meats.

Spitting of roast-meats.

Then to know the temperatures of fires for every meat, and which must have a slow fire, yet a good one, taking leasure in roasting, as chines of Beefe, Swannes, Turkies, Peacocks, Bustards, and generally any great large Fowle, or any other joynts of Mutton, Veale, Ducke, Kidde, Lambe, or such like: whether it be Venison red, or fallow, which indeed would lie long at the fire, and soak well in the roasting, and which would have a quicke and sharp fire without scorching; as Pigs, Pullets, Pheasants, Partridges, Quailes, and all sorts of middle sized, or lesser fowle, and all small birds, or compound roast-meats, as Olives of Veale, Haslers, a pound of butter roasted, or puddings simple of themselves, and many other such like, which indeed would be suddenly and quickly dispatcht, because it is intended in Cookery, that one of these dishes must be made

Temperature of fire.

ready

ready whilst the other is in eating. Then to know the complections of meats, as white must be pale and white roasted, yet thorowly roasted, as Mutton, Veale, Lamb, Kid, Capon, Pullet, Pheasant, Partridge, Quaile, and all sorts of middle and small land or water Fowle, and all small Birds, and which must be browne roasted, as Beefe, Venison, Porke, Swanne, Geese, Pigges, Crane, Bustards, and any large fowle, or other thing whose flesh is blacke. The complexions of meat.

Then to know the best bastings for meat, which is sweet Butter, sweet Oyle, barrell Butter, or fine refined up seame with Cinamon, Cloves, & Mace. There be some that will baste onely with Water, and Salt, and nothing else; yet it is but opinion, and that must be the worlds Master alwaies. The best bastings of meats.

Then the best dredging, which is either fine white bread-crums, well grated, or else a little very fine white meale, and the crums very well mixt together. The best dredging.

Lastly, to know when meat is roasted enough; for as too much rawnesse is unholesome, so too much drinesse is not nourishing. Therefore to know when it is in the perfect height, and is neither too moist nor too dry, you shall observe these signes first in your large joynts of meat, when the steem or smoke of the meat ascendeth, either upright or else goeth from the fire, when it beginneth a little to shrinke from the spit, or when the gravy which droppeth from it is cleare without bloodinesse; then is the meat enough. To know when meat is enough.

If it be a Pigge when the eyes are fallen out, and the body leaveth piping: for the first is when it is halfe roasted, and would be singed to make the coate rise, and crackle, and the later when it is full enough and would bee drawne: or if it bee any kinde of Fowle

you

you roast, when the thighes are tender, or the bloody parts of the pinions of the fore ingeon of the wings, are without blood; then bee sure that your meat is fully enough roasted: yet for a better and more compleat assuredneſſe, you may thrust your knife into the thickest parts of the meat, and draw it out againe; and if it bring out white gravy without any bloodinesse, then assuredly it is enough, and may bee drawne with all speed convenient, after it hath beene well basted with butter not formerly melted, then dredged as aforesaid, then basted over the dredging, and so suffered to take two or three turnes, to make crispe the dredging: Then dish it in a faire dish with salt sprinckled over it, and so serve it forth. Thus you see the generall forme of roasting all kind of meate: therefore now I will retume to some particular dishes, together with their severall sawces.

The complexions of meats.

The best dishes of meats.

The best dredging.

Roasting Mutton with Oysters.

To know when meat is enough.

If you will roast Mutton with Oysters, take a shoulder alone, or a legge, and after it is washt, parboyle it a little, then take the greatest Oysters, and having opened them into a dish, draine the gravy cleane from them twice or thrice, then parboyle them a little: then take Spinage, Endive, Succory, Strawberry-leaves, Violet-leaves, and a little Parsley, with some Scallions: chop these very small together; then take your Oysters very dry, drain'd, and mixe them with an halfe part of these hearbes; then take your meate, and with these Oysters and hearbes farce or stop it, leaving no place empty, then spit it and roast it, and whilst it is in roasting, take good store of Verjuice and Butter, and a little Salt, and set it in a dish on a chasing-dish and coales: and when it beginnes to boyle, put in the remainder of your hearbs with the Oysters, and a good

quantity

quantity of Currants, with Cinamon, and the yolke of a couple of egges: And after they are well boyled and stirred together, season it up according to taste with Sugar: then put in a few Lemon slices, the meate being enough, draw it, and lay it upon this sawce removed into a cleane dish, the edge thereof being trimmed about with Sugar, and so serve it forth.

To roast a leg of Mutton otherwise.

To roast a legge of Mutton after an outlandish fashion, you shall take it after it is wash'd, and cut off all the flesh from the bone, leaving onely the outmost skinne entirely whole and fast to the bone; then take thicke Creame, and the yolkes of Egges, and beate them exceedingly well together; then put to Cinamon, Mace, and a little Nutmegge, with Salt, then take bread crummes finely grated and searst, with good store of Currants, and as you mixe them with the Creame, put in Sugar, and so make it into a good stiffnesse: Now if you would have it looke greene, put in the juyce of sweete herbes, as Spinage, Violet-leaves, Endive, &c. If you would have it yellow, then put in a little Saffron strained, and with this fill up the skinne of your legge of Mutton in the same shape and forme that it was before, and stick the outside of the skinne all over with Cloves, and so roast it thorowly, and baste it very well, then after it is dredg'd, serve it up as a legge of Mutton with this pudding, for indeed it is no other: you may stop any other joynt of meate, as breast of Lambe, or the belly of any Fowle boyled or roast, or Rabbet, or any meate else which hath skinne or emptinesse. If into this pudding you bake the sweet pith of an Oxe backe, it is a most goodly taste, and excellent soveraigne for any disease, such or like in the nature whereof it is.

To roast a pig.

To

To roast a Gigget of Mutton.

To roast a Gigget of Mutton, which is the legge splayed and halfe part of the loyne together, you shall after it is washt, chop it with Gloves, so spit it, and lay it to the fire, and tend it well with basting: then you shall take Vinegar, Butter, and Currants, and set them on the fire in a dish or pipkin; then when it boiles, you shall put in sweete herbs, finely chopt, with the yolkes of a couple of Egges, and so let them boyle together: then the meate being halfe roasted, you shall pare off some part of the leaneſt and browneſt, then shred it very small, and put it into the pipkin also: then season it up with Sugar, Cynamon, Ginger, and Salt, and so put it into a cleane dish, Then draw the Gigget of Mutton and lay it on the sauce, and throw salt on the top, and so serve it up.

To roast Olives of Veale.

You shall take of a legge of Veale, and cut the flesh from the bones, and cut it out into thinne long slices; then take sweete herbes, and the white parts of scallions, and chop them well together with the yolkes of Eggs, then role it up within the slices of Veale, and so spit them, and roast them; then boyle Verjuice, Butter, Sugar, cynamon, currants, and sweete herbes together, and being seasoned with a little salt, serve the Olives up upon that sauce with salt cast over them.

To roast a pig.

To roast a Pigge curiously, you shall not scald it, but draw it with the haire on, then having washt it, spit it, and lay it to the fire softly, not scorching it: then being a quarter roasted, and the skinne blistered from the flesh, with your hand pull away the haire and skin, and leave all the fat and flesh perfectly bare: then with your knife scotch all the flesh downe to the bones, and baste it exceedingly with sweete butter, and see it be no more but warme: then dredge it with fine

fine Bread-crums, Currants, Sugar and Salt mixt together, and thus apply dredging, upon basting, and basting upon dredging, till you have covered all the flesh a full inch deep: Then the meate being fully roaste, draw it, and serve it up whole.

To roast a pound of Butter curiously and well, you shall take a pound of sweete Butter and beate it stiffe with Sugar, and the yolkes of Egges, then clap it roundwise about a spit, and lay it before a soft fire, and presently dredge it with the dredging before appointed for the Pigge: then as it warmeth or melteth, so apply it with dredging till the Butter be overcome, and no more will melt to fall from it, then roast it browne, and so draw it, and serve it out, the dish being as neatly trim'd with Sugar as may be. To roast a pound of butter well.

To roast a pudding upon a spit, you shall mixe the pudding before spoken of in the legge of Mutton, neither omitting Hearbs, nor Saffron, and put to a little sweet Butter and mixe it very stiffe: then fold it about the spit, and have ready in another dish some of the same mixture well seasoned, but a great deale thinner, and no Butter at all in it; and when the pudding doth begin to roast, and that the Butter appeares, then with a spoone cover it all over with the thinner mixture, and so let it roast: then if you see no more Butter appeare, then baste it as you did the Pigge, and lay more of the mixture on, and so continue till all be spent: And then roast it browne, and so serve it up. To roast a pudding on a spit.

If you will roast a chine of Beefe, a loyne of Mutton, a Capon, and a Larke, all at one instant and at one fire, and have all ready together and none burnt: you shall first take your chine of Beefe and parboyle it more then halfe through: Then first take your Capon, being large To roast a chine of Beefe, Loyn of Mutton, Lake, and Capon at one fire, and at one instant.

large and fat, and spit it near the hand of the turner, with the legges from the fire, then spit the chine of Beefe, and the Larke, and lastly the loyne of Mutton, and place the Larke so as it may be covered over with the Beefe, and the fat part of the loyne of Mutton, without any part disclosed: Then baste your Capon and your loyne of Mutton with cold water and Salt, the chine of Beefe with boyling Larde: Then when you see the beefe is almost enough, which you shall hasten by schotching and opening of it: then with a cleane cloath you shall wipe the Mutton and Capon all over, and then baste it with sweet Butter till all bee enough roasted: then with your knife lay the Larke open which by this time will be stewed betweene the Beefe and Mutton, and basting it also with dredge all together draw them, and serve them up.

To roast Venison. If you will roast any Venison, after you have washt it, and cleansed all the blood from it, you shall sticke it with Cloves all over on the out side; and if it be leane, you shall larde it either with Mutton-larde, or Porke-larde, but Mutton is the best: then spit it and roast it by a soaking fire, then take Vinegar, bread-crummes, and some of the gravy, which comes from the Venison, and boyle them well in a dish: then season it with Sugar, Cinamon, Ginger and Salt, and serve the Venison forth upon the sauce when it is roasted enough.

How to roast fresh Sturgeon. If you will roast a piece of fresh Sturgeon, which is a dainty dish, you shall stop it with cloves, then spit it, and let it roast at great leasure, plying it continually with basting, which will take away the hardnesse: then when it is enough, you shall draw it, and serve it upon Venison sauce, with Salt onely throwne upon it.

The

The roasting of all sorts of meats, differeth nothing but in the fires, speed and leasure as is aforesaid, except these compound dishes, of which I have given you sufficient presidents, and by them you may performe any worke whatsoever: but for the ordering, preparing and trussing your meates for the spit or table, in that there is much difference: for all joynts of meate except a shoulder of Mutton, you shall crush and breake the bones well, from Pigs and Rabbets your shall cut off the feete before you spit them, and the heads when you serve them to the Table, and the Pigge you shall chine, and divide into two parts: Capons, Pheasants, Chickens, and Turkies you shall roast with the Pinions foulded, and the legges extended; Hennes, Stockedoves and House-doves, you shall roast with the pinions foulded up, and the legges cut off by the knees, and thrust into the bodies: Quailes, Partridges, and all sorts of small birds, shall have their pinions cut away, and the legges extended: all sorts of Waterfowle shall have their pinions cut away, and their legges turned back-ward: Wood-cockes, Snipes and Stints shall be roasted with their heads and neckes on, and their legges thrust into their bodies, and Shovelers and Bitterns shall have no neckes but their heads onely.

Ordering of meats to be roasted.

Take a Cowes Udder, and first boyle it well: then sticke it thicke all over with Cloves: then when it is cold, spit it, and lay it to the fire, and apply it very well with basting of sweet Butter, and when it is sufficiently roasted and browne, then dredge it, and draw it from the fire, take Vinegar and Butter, and put it on a Chafing-dish and coales, and boyle it with White-bread-crummes, till it be thick; then put to it good store of

To roast a Cowes Vdder.

of Sugar and Cynamon, and putting it in a cleane dish, lay the Cowes Udder therein, and trim the sides of the dish with suger, and so serve it up.

To roast a fillet of Veale.

Take an excellent good legge of Veale, and cut the thicke part thereof a handfull and more from the knuckle: then take the thicke part (which is the Fillet) and fierce it in every part all over with Strawberry-leaves, Violet-leaves, Sorrell, Spinage, Endive and Succory grossely chopt together, and good store of Onyons: then lay it to the fire, and roast it very sufficiently, and browne, casting good store of salt upon it, and basting it well with sweete Butter: then take of the former herbes, much finer chopt then they were for fiercing, and put them into a Pipkin with Vineger, and clean wash'd Currants, and boyle them well together: then when the herbes are sufficiently boyl'd and soft, take the yolkes of foure very hard boyl'd Egges, and shred them very small, and put them into the Pipkin also with Sugar and Cynamon, and some of the gravie which drops from the Veale, and boyle it over againe, and then put it into a cleane dish, and the Fillet being dredg'd and drawne, lay upon it, and trimme the side of the dish with sugar, and so serve it up.

Of Sauces, and first for a roast Capon or Turkey.

To make an excellent sauce for a roast Capon, you shall take Onyons, and having sliced and pilled them, boyle them in faire water with pepper, salt, and a few bread-crumme: then put into it a spoonfull or two of Claret-wine, the juyce of an Orenge, and three or foure slices of a Lemon pill; all these shred together, and so powre it upon the Capon being broke up.

Sauces for a Hen or Pullet.

To make sauce for an old Hen or Pullet, take a good quantity of beere and salt, and mixe them well together with a few fine bread-crummes, and boyle them

on

on a chaffing dish and coales, then take the yelkes of three or foure hard Egges, and being shred small, put it to the Beere, and boyle it also: then the Hen being almost enough, take three or foure spoonefuls of the gravy which comes from her and put it in also, and boyle all together to an indifferent thicknesse: which done, suffer it to boyle no more, but onely keepe it warme on the fire, and put it into the juyce of two or three Orenges, and the slices of Lemmon pils shred small, and the slices of Orenges also having the uper rine taken away: then the Henne being broken up, take the braines thereof, and shredding them small, put it in to the sauce also, and stirring all well together, put it hot into a cleane warme dish, and lay the Henne (broke up) in the same.

Sauce for Chickens.

The sauce for Chickins is divers, according to mens tastes: for some will onely have butter, Veriuice, and a little Parsley rosted in their bellies mixt together; others, will have Butter, Verjuice and Sugar boyld together with toasts of bread: and others will have thicke sippets with the juyce of Sorrell and Sugar mixt together.

Sauce for a pheasant or Partridge.

The best sauce for a Phesant is water & Onyons slic't, Pepper and a little Salt mixt together, and but stewed upon the coales, and then powred upon the Phesant or Partridge being broken up, and some will put thereto the juyce or slices of an Orenge or Lemmon, or both: but it is according to taste, and indeed more proper for Pheasant then a Partridge.

Sauce for a Quaile, Raile, of big bird.

Sauce for a Quaile, Raile, or any fat big Bird, is Claret wine and Salt mixt together with the gravy of the Bird, and a few fine Bread-crummes well boyld together and either a Sage-leafe, or Bay-leafe crusht among it according to mens tastes.

Sauce for Pigeons.

The best sauce for Pigeons, Stockdoues, or such like, is Vinegar and Butter melted together, and Parsley rosted in their bellies, or Vine-leaves rosted and mixed well together.

A generall sauce for wild Fowle.

The most generall sauce for ordinary wild-fowle rosted, as Duckes, Mallard, Widgen, Teale, Snipe, Sheldrake, Plovers, Puets, Guls, and such like, is onely Mustard and Vinegar, or Mustard and Verjuice mixt together, or else an Onyon, Water, and Pepper, and some (especially in the Court) use onely Butter melted, and not with any thing else.

Sauce for greene-Geese.

The best Sauce for greene Geese is the juyce of Sorrell and Sugar mixt together with a few scalded Feberries, & served upon sippets, or else the belly of the green Goose fild with Feberries, and so rosted, and then the same mixt with Verjuyce, Butter, Sugar, and Cinamon, and so served upon sippets.

Sauce for a stubble Goose.

The sauce for a stubble Goose is diverse, according to mens minds, for some will take the pap of rosted Apples, and mixing it with Vinegar, boyle them together on the fire with some of the gravy of the Goose, and a few Barberies and Bread crummes, and when it is boyled to a good thicknesse, season it with Sugar and a little Cinamon, and so serve it up: some will adde a little Mustard and Onyons unto it, and some will not rost the Apples, but pare them and slice them, and that is the nearer way, but not the better. Others will fill the belly of the Goose full of Onyons shred, and Oat-meale ground, and being rosted enough, mixe it with the gravy of the Goose, and sweet hearbs well boyld together, and seasoned with a little Verjuyce.

A Gallantine. Sauce for a Swan, Bitter.

To make a Gallantine, or sauce for a Swan, Bitter, Shovelet, Herne, Crane, or any large foule, take the blood of the

the same fowle, and being stird well, boyle it on the fire, then when it comes to be thicke, put unto it Vinegar a good quantity, with a few fine bread-crummes, and so boyle it over againe: then being come to good thicknes, season it with Sugar & Cinamon, so as it may taste pretty and sharpe upon the Cinamon, & then serve it up in saucers as you do *Mustard*: for this is called a Chaudron or Gallantine, & is a sauce almost for any fowle whatsoever. Shoveler, or large Fowle.

To make sauce for a Pigge, some take Sage and roast it in the belly of the Pigge, then boyling Verjuice, Butter and Currants together, take & chop the Sage small, and mixing the braines of the Pig with it, put all together, and so serve it up. Sauce for a Pig.

To make a sauce for a Ioynt of Veale, take all kind of sweete Pot-hearbs, and chopping them very small with the yeelkes of two or three Egges, boyle them in Vinegar and Butter, with a few bread crummes, and good store of Currants; then season it with Sugar and Cinamon, and a Clove or two crusht, and so powre it upon the Veale, with the slices of Orenges and Lemons about the dish. Sauce for Veale.

Take Orenges and slice them thin, and put unto them White-wine & Rose-water, the powder of Mace, Ginger & Sugar, and set the same upon a chasing dish and coales, & when it is halfe boyled put to it a good lumpe of Butter, & then lay good store of sippets of fine white bread therein, and so serve your Chickens upon them, and trimme the sides of the dish with Sugar. Additions unto Sauces. Sopes for Chickens.

Take faire water and set it over the fire, then slice good store of Onyons & put into it, and also Pepper & Salt, and good store of the gravy that comes from the Turky, and boyle them very well together: then put to it a few fine crummes of grated bread to thicken it; Sauce for a Turkey.

a very little Sugar, and some Vineger, and so serve it up with the Turkey: or otherwise take grated white bread and boile it in white Wine till it be thicke as a Gallantine, and in the boyling put in good store of Sugar and Cinamon, and then with a little Turnesole make it of a high murrey colour, and so serve it in Saucers with the Turkey in the manner of a Gallantine.

The best Gallantine.

Take the blood of a Swan, or any other great Fowle, and put it into a dish; then take strewed Prunes and put them into a strayner, and strayne them into the blood; then set it on a chaffing dish and coales, and let it boyle, then stirring it till it come to be thicke, and season it very well with Sugar and Cinamon, and so serve it in Saucers with the Fowle, but this sauce must be served cold.

Sauce for a Mallard.

Take good store of Onyons, pill them, and slice them, and put them into Vinegar, and boyle them very well till they bee tender; then put into it a good lumpe of sweet Butter, and season it well with Sugar and Cinamon, and so serve it up with the Fowle.

Of Carbonadoes.

Charbonados, or Carbonados, which is meate broyled upon the coales (and the invention thereof first brough out of France, as appeares by the name) are of divers kinds according to mens pleasures, for there is no meate either boyled or roasted whatsoever, but may afterwards be broyled, if the maste thereof be disposed; yet the generall dishes for the most part which are used to be Carbonadoed, are a breast of Mutton halfe boiled, a shoulder of Mutton halfe roasted, the Legge, Wings, and Carkasses of Capon, Turkey, Goose, or any other Fowle whatsoever, especially Land-fowle.

What is to be Carbonadoed.

And lastly, the uttermost thicke skinne which covereth the ribbes of Beefe, and is called (being broyled)

broyed) the Inns of Court-Gooſe, and is indeed a diſh uſed moſt for wantonneſſe, ſometimes to pleaſe appetite: to which may alſo be added the broyling of Pigs heads, or the braines of any Fowle whatſoever after it is roaſted and dreſt.

The manner of carbonadoing.

Now for the manner of carbonadoing, it is in this ſort: you ſhall firſt take the meat you muſt carbonadoe, and ſcotch it both above and below, then ſprinckle good ſtore of ſalt upon it, and baſte it all over with ſweete Butter melted, which done, take your broyling-iron, I doe not meane a Grid-iron (though it be much uſed for this purpoſe) becauſe the ſmoake of the coales, occaſioned by the dropping of the meate, will aſcend about it, and make it ſtinke; but a plate-iron made with hookes and pickes, on which you may hang the meate, and ſet it cloſe before the fire, and ſo the Plate heating the meate behinde, as the fire doth before, it will both the ſooner, and with more neatneſſe be ready: then having turned it, and baſted it till it be very browne, dredge it, and ſerve it up with Vineger and Butter.

Of the roaſting of Mutton.

Touching the roaſting of Mutton, Veniſon, or any other loynt of meate, which is the moſt excellenteſt of all carbonadoes, you ſhall take the fatteſt and largeſt that can poſſibly be got (for leane meate is loſſe of labour, and little meat not worth your time) and having ſcorcht it, and caſt ſalt upon it, you ſhall ſet it on a ſtrong forke, with a dripping-pan underneath it, before the face of a quicke fire, yet ſo farre off, that it may by no meanes ſcorch, but roaſt at leaſure; then with that which falls from it, and with no other baſting, ſee that you baſte it continually, turning it ever and anon many times, and ſo oft, that it may ſoake and

browne at great leasure, and as oft as you baste it, so oft sprinkle salt upon it, and as you see it roast, scotch it deeper and deeper, especially in the thickest and most fleshly parts where the blood most resteth: and when you see that no more blood droppeth from it, but the gravie is cleare and white; then shall you serve it up, either with Venison sauce, or with vinegar, pepper and sugar, cynamon, and the juyce of an orenge mixt together and warmed with some of the gravie.

Additions,

☞ Vnto Carbonados.

A rasher of Mutton or Lambe.

Take Mutton or Lambe that hath been either rosted or but parboyl'd, and with your knife scotch it many wayes, then lay it in a deepe dish, and put to it a pint of white-wine, and a little whole mace, a little slic'd nutmegge, and some sugar, with a lumpe of sweet butter, and stew it so till it be very tender: then take it forth, and browne it on the Grid-iron, and then laying sippets in the former broth, serve it up.

How to carbonado tongues.

Take any tongue, whether of Beefe, Mutton, Calves, red Deere or Fallow, and being well boyl'd, pill them, cleave them, and scotch them many waies; then take three or foure egges broken, some sugar, cynamon and nutmegge, and having beaten it well together, put to it a lemon cut in thin slices, and another cleane pill'd, and cut into litle foure-square bits, and then take the tongue and lay it in: and then having melted good store of butter in a Frying-pan, put the tongue and the rest therein, and so fry it browne, and then dish it, and scrape sugar upon it, and serve it up.

Additions,

☞ For dressing of Fish.

How to souce any fresh-fish.

Take any fresh-fish whatsoever (as Pike, Breame, Carpe, Barbell, Cheain, and such like) and drow it, but scale it not; then take out the Liver and the refuse, and having opened it, wash it, then take a pottle of faire water, a pretty quantity of white-wine, good store of salt, and

and some Vinegar, with a little bunch of sweet hearbs, and set it on the fire, and as soone as it begins to boile, put in your fish, and having boild a little, take it up into a faire vessell, then put into the liquor some grosse pepper and Ginger, and when it is boild well together with more salt, set it by to coole, and then put your fish into it, and when you serve it up, lay Fenell thereupon.

How to boyle small fish.

To boyle small fish, as Roches, Daces, Gudgeon or Flounders, boyle White-wine and water together with a bunch of chole hearbs, and a little whole Mace; when all is boyled well together, put in your fish, and skum it well: then put in the soale of a mancher, a good quantity of sweet butter, and season it with pepper and verjuice, and so serve it in upon sippets, and adorne the sides of the dish with Sugar.

To boyle a Gurnet or Rochet.

First, draw your fish, and either split it open in the backe, or joynt it in the backe, and truss it round, then wash it cleane, and boyle it in water and salt, with a bunch of sweet hearbs: then take it up into a large dish, and powre unto it Verjuice, Nutmeg, Butter & pepper, and letting it stew a little, thicken it with the yolkes of Egges: then hot remove it into another dish, and garnish it with slices of Orenges and Lemons, Barberies, prunes and Sugar, and so serve it up.

How to bake a Carpe.

After you have drawne, washt and scalded a faire large Carpe, season it with pepper, salt, and Nutmeg, and then put it into a coffin with good store of sweete Butter, and then cast on Rayfins of the Sunne, the juyce of Lemons, and some slices of Orenge-pils; and then sprinkling on a little vinegar, close up and bake it.

How to bake a Tench.

First, let your Tench blood in the rayle, then scoure it, wash it, and scald it, then having dried it, take the fine crummes of bread, sweet Creame, the yolkes of

Egges, Currants cleane washt, a few sweet hearbs chopt small, season it with Nutmegs and Pepper, and make it into a stiffe paste, and put it into the belly of the Tench: then season the fish on the outside with Pepper, Salt and Nutmeg, and so put it into a deepe coffin with sweet Butter, and so close up the pye and bake it: then when it is enough, draw it, and open it, and put into it a good piece of preserved Orenge minst: then take Vinegar, Nutmeg, Butter, Sugar, and the yolke of a new layd egge, and boyle it on a Chaffing-dish and coales, alwaies stirring it to keepe it from curding; then powre it into the pye, shake it well, and so serve it up.

How to stew a Trout.

Take a large Trout, faire trim'd, and wash it, and put it into a deepe pewter dish, then take halfe a pinte of sweet wine, with a lumpe of butter, and a little whole Mace, Parsley, Savory and Time, mince them all small, and put them into the Trouts belly, and so let it stew a quarter of an houre: then minse the yolke of an hard Egge, strow it on the Trout, & laying the hearbs about it, and scraping on Sugar, serve it up.

How to bake Eeles.

After you have drawne your Eeles, chop them into small pieces of three or foure inches, and season them with Peper, Salt and Ginger, and so put them into a coffin with a good lumpe of Butter great Raysins, Onyons small chopt, and so close it, bake it, and serve it up.

Of the Pastery and baked meats.

Next to these already rehearsed, your *English Housewife* must be skilfull in pastery, and know how and in what manner to bake all sorts of meat, and what paste is fit for every meat, and how to handle and compound such pasts: As for example, red Deere venison, wilde Boare, Gammons of Bacon, Swans, Elkes, Porpus, and such like standing dishes, which must be kept long, wold

be bak't in a moyſt, thicke rough, courſe, and long laſting cruſt, and therefore of all other your Rye paſte is beſt for that purpoſe: your Turkie, Capon, Pheaſant, Partridge, Veale, Peacocks, Lambe, and all ſorts of waterfowle which are to come to the Table more then once (yet not many daies) would be back't in a good white cruſt, ſomewhat thicke; therefore your wheat is fit for them: your Chickens, Calves-feet, Olives, Potatoes, Quinces, Fallow Deere and ſuch like, which are moſt commonly eaten hot, would be in the fineſt, ſhorteſt and thinneſt cruſt; therefore your fine wheate flower, which is a little baked in the oven before it be kneaded is the beſt for that purpoſe.

Of the mixture of paſts.

To ſpeake then of the mixture and kneading of paſts, you ſhall underſtand that your rye paſte would be kneaded onely with hot water and a little butter, or ſweete ſeame and Rye-flower very finely ſifted, & it would be made tough and ſtiffe, that it may ſtand well in the riſing, for the coffin thereof muſt ever be very deep; your courſe wheat cruſt would be kneaded with hot water, or Mutton broth, and good ſtore of Butter, & the paſte made ſtiffe and tough, becauſe that coffin muſt be deep alſo; your fine wheat cruſt muſt bee kneaded with as much Butter as Water, and the paſte made reaſonable lythe and gentle, in which you muſt put three or foure Egges or more, according to the quantity you blend together, for they will give it a ſufficient ſtiffening.

Of puff-paſte.

Now for the making of Puff-paſt of the beſt kind, you ſhall take the fineſt wheat flower after it hath bin a little back't in a pot in the oven, and blend it well with egges whites and yelkes all together, and after the paſte is well kneaded, roule out a part thereof as thinne as you pleaſe, and then ſpread cold ſweet butter over the

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same, then upon the same butter role another leafe of the paste as before; and spread it with butter also, and thus role leafe upon leafe with butter between till it be as thicke as you thinke good: and with it either cover any bak't meate, or make pastie for Venison, Florentine, Tart or what dish else you please and so bake it: there be some that to this paste use Sugar, but it is certaine it will hinder the rising thereof; & therefore when your puff-paste is bak't, you shall dissolve Sugar in Rose-water, and drop it into the paste as much as it will by any meanes receive, and then set it a little while in the oven after and it will be sweet enough.

Of baking red Deare, or Fallow, or any thing to keepe cold.

When you bake red Deere, you shall first parboyle it and take out the bones, then you shall if it be leane larde it, if fat save the charge, then put it into a presse to squese out the blood; then for a night lay it in a meare sauce made of Vinegar, small drinke and Salt, and then taking it forth, season it well with pepper finely beaten, and sale well mixt together, and see that you lay good store thereof, both upon and in every open and hollow place of the Venison; but by no meanes cut any slashes to put in the pepper, for it will of it selfe sinke fast enough into the flesh, and be more pleasant in the eating: then having raised the coffin, lay in the bottome a thicke course of butter, then lay the flesh thereon and cover it all over with butter, and so bake it as much as if you did bake great browne bread then when you draw it, melt more butter with three or foure spoonefull of Vinegar, and twice so much Claret wine, and at a vent hole on the toppe of the lidde powre in the same till it can receive no more, and so let it stand and coole; and in this sort you may bake Fallow-Deere, or Swanne, or whatsoever else you

please

pleaſe to keepe cold, the meare ſauce onely being left out which is onely proper to red Deere: And if to your meare ſauce you adde a little Turneſole, and therein ſteepe Beefe, or Ramme mutton: you may alſo in the ſame manner take the firſt for red Deere Veniſon, and the latter for Fallow, and a very good judgement ſhall not be able to ſay otherwiſe, than that it is of it ſelfe perfect Veniſon, both in taſte, colour, and the manner of cutting.

To bake Beefe or Mutton for Veniſon.

To bake an excellent Cuſtard or Dowſet you ſhall take good ſtore of egges, and puting away one quarter of the whites, beate them exceeding well in a baſon, and then mixe with them the ſweeteſt and thickeſt creame you can get, for if it be any thing thinne, the Cuſtard will be wheyiſh; then ſeaſon it with ſalt, ſugar, cinamon, cloves, mace, and a little nutmegge; which done, raiſe your coffins of good tough wheate paſte, being the ſecond ſort before ſpoke of, and if you pleaſe, raiſe it in pretty workes, or angular formes, which you may doe by fixing the upper part of the craſt to the nether with the yolkes of egges: then when the coffins are ready, ſtrow the bottomes a good thickneſſe over with Currants and Sugar, then ſet them into the Oven, and fill them up with the confection before blended, and ſo drawing them, adorne all the tops with Carraway-Cumfets, and the ſlices of Dates pickt right up, and ſo ſerve them up to the table. To prevent the wheyiſhneſſe of the Cuſtard, diſſolve into the firſt confection a little Iſinglaſſe and all will be firme.

To bake a Cuſtard or Dowſet.

To make a Marrow-bone Pye.

To bake an Olive-pie.

To make an excellent Olive-pie: take ſweet herbs, as violet-leaves, Strawberry-leaves, Spinage, Succory, Endive, Time and Sorrell, and chop them as ſmall as may be, and if there be a Scallion or two amongſt them

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it will give the better taſte, then take the yolkes of hard Egges with Currants, Cynamon, Cloves and Mace, and chop them amongſt the herbes alſo; then having cut out long Olives of a legge of Veale, role up more then three parts of the herbes ſo mixed within the Olives, together with a good deale of ſweete butter; then having raiſed up your craſt of your fineſt and beſt paſte, ſtrow in the bottome the remainder of the herbs, with a few great Raiſins, having the ſtones pick'd out: then put in the Olives, and cover them with great Raiſins, and a few Prunes: then over all lay good ſtore of Butter, and ſo bake them: then being ſufficiently bak'd, take Claret wine, Suger, Cynamon, and two or three ſpoonefull of wine Vinegar, and boyle them together, and then drawing the pie, at a vent in the top of the lid put in the ſame, and then ſet it into the Oven againe a little ſpace, and ſo ſerve it forth.

To make a Marrow-bone Pye.

To bake the beſt Marrow-bone pie, after you have mixt the cruſts of the beſt ſort of paſtes, and raiſed the coffin in ſuch manner as you pleaſe: you ſhall firſt in the bottome thereof lay a courſe of marrow of Beefe mixt with Currants: then put upon it a lay of the ſoales of Artichokes, after they have beene boyl'd, and are divided from the thiſtle; then cover them over with marrow, currants, and great raiſins, the ſtones pickt out: then lay a courſe of Potatoes cut in thicke ſlices, after they have beene boyled ſoft, and are cleane pild: then cover them with marrow, currants, great raiſins, ſugar and cynamon: then lay a layer of candied Eringoroots mixt very thicke with the ſlices of Dates: then cover it with marrow, currants, great raiſins, ſugar, cynamon and dates, with a few damake-prunes, and ſo bake it: and after it is bak'd, poure into it as long as it

it will receive it, white-Wine, Rosewater, Sugar, Cinamon and Vinegar, mixt together, & candy all the cover with Rosewater and Sugar finely, and so set it into the Oven a little, and after serve it forth.

To bake a Chicken-pie.

To bake a Chicken pie, after you have cruſt your Chickens, broken their legges and breaſt-bones, & rayſed your cruſt of the beſt paſte, you ſhall lay them in the coffin cloſe together with their bodies full of Butter: then lay upon them, & underneath them Currans, great Raiſins, Prunes, Cinamon, Sugar, whole Mace, and Salt: then cover all with great ſtore of Butter, and ſo bake it; after powre into it the ſame liquor you did in your Marrow-bone-pie with yelkes of two or three Eggs beaten amongſt it; and ſo ſerve it forth.

☞ Additions to the Paſtery.

Veniſon of Hares.

To make good Red-Deere Veniſon of Hares, take a Hare of two, or three, as you can or pleaſe, and picke all the fleſh from the bones; then put it into a morter eyther of wood or ſtone, and with a wooden peſtle let a ſtrong perſon beate it exceedingly, and ever as it is beating, let one ſprinkle in Vinegar and ſome Salt; then when it is ſufficiently beaten, take it out of the morter, and put it into boyling water and parboyle it: when it is parboyld, take it and lay it on a table in a round lumpe, and lay a board over it, and with weights preſſe it as hard as may be: then the water being preſt out of it, ſeaſon it well with Pepper and Salt: then lard it with the fat of Bacon ſo thicke as may be; then bake it as you bake other Red-Deere, which is formerly declared.

To bake a Hare-pie.

Take a Hare and pick off all the fleſh from the bones, and only reſerve the head, then parboile it well: which done, take it out and let it coole, aſſoone as it is cold, take at leaſt a pound and halfe of Rayſins of the Sunne, and take out the ſtones: then mixe them with a good

quantity

quantity of Mutton fuet, and with a sharpe shredding knife shred it as small as you would doe for a Chewet: then put to it Currants and whole Raysins, Cloves, and Mace, Cinamon and Salt: then having rayfed the coffin long wise to the proportion of a Hare, first lay in the head, and then the foresayd meate, and lay the meate in the true proportion of a Hare, with necke, shoulders, & legs, and then cover the coffin and bake it as other bak't meates of that nature.

A Gammon of Bacon-pie.

Take a Gammon of Bacon and onely wash it cleane and then boyle it on a soft gentle fire, till it be boyled as tender as is possible, ever and anon fleeting it cleane, that by all meanes it may boyle white: then take off the swerd, and searse it very well with all manner of sweete and pleasant serving herbs: then strow store of Pepper over it, and pricke it thicke with Cloves; then lay it into a coffin made of the same proportion, and lay good store of Butter round about it, and upon it, and strow Pepper upon the Butter; that as it melts, the Pepper may fall upon the Bacon: then cover it, and make the proportion of a Pigges head in paste upon it, and then bake it as you bake red Deere, or things of the like nature; onely the Paste would be of Wheate-meale.

☞ A Hering-pie.

Take white pickled Herrings of one nights watering and boyle them a little: then pill off the skinne and take onely the backs of them, and picke the fish cleane from the bones, then take good store of Raisins of the Sunne, and stone them, and put them to the fish: then take a Warden or two, and pare it, and slice it in small slices from the chore, and put it likewise to the fish: then with a very sharpe shredding-knife shred all as small and fine as may bee: then put to it good store of Currants, Sugar, Cinamon, slic'd Dates, and so put

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it into the Coffin, with good ſtore of very ſweet Butter, and ſo cover it, and leave onely a round vent-hole on the top of the lid; and ſo bake it like pies of that nature: When it is ſufficiently bak't, draw it out, & take Claret-wine and a little Verjuyce, Sugar, Cinamon, and ſweet Butter, and boyle them together; then put it into the vent-hole, and ſhake the pie a little, and put it againe into the Oven for a little ſpace; and ſo ſerve it up, the lid being candied over with Sugar, and the ſides of the diſh trimmed with Sugar.

A Ling-pie.

Take the Iole of the beſt *Ling* that is not much watred, and is well ſodden and cold, but whilſt it is hot take off the skin, and pare it cleane underneath, and picke out the bones cleane from the fiſh: then cut it into groſſe bits and let it lie; then take the yelkes of a dozen Egges boild exceeding hard; and put them to the fiſh, and ſhred all together as ſmall as is poſſible: then take all manner of the beſt, and fineſt pot herbes, & chop them wonderfull ſmall, and mixe them alſo with the fiſh; then ſeaſon it with Pepper, Cloves, and Mace, & ſo lay it into a coffin with great ſtore of ſweet Butter, ſo as it may ſwimme therein, and then cover it, and leave a vent-hole open in the top: when it is bak't, draw it, & take Verjuice, Sugar, Cinamon and Butter, and boyle them together, and ſtrift with a feather annoynt all the lid over with that liquor, and then ſcrape good ſtore of Sugar upon it; then powre the reſt of the liquor in at the vent-hole, and then ſet it into the Oven againe for a very little ſpace, and then ſerve it up as pies of the ſame nature, and both theſe pies of fiſh before rehearſed, are ſpeciall Lenten diſhes.

Take a pint of the ſweeteſt and thickeſt Creame that can be gotten, and ſet it on the fire in a very cleane

ſcowred

scowred skiller, and put into it Sugar, Cloves and a Nutmegge cut into foure quarters, and so boyle it well: then take the yelkes of foure Eggs, and take off the filmes, and beate them well with a little sweet Creame: then take the foure quarters of the Nutmegge out of the Creame, then put in the Egges, and stirre it exceedingly, till it be thicke: then take a fine Manchet, and cut it into thin shives, as much as will cover a dish bottome, and holding it in your hand, powre halfe the Creame into the dish: then lay your bread over it, then cover the bread with the rest of the Creame, and so let it stand till it be cold: then strow it over with Carraway Comfets, and pricke up some Cinamon Comfets, and some slic't Dates; or for want thereof, scrape all over it some Sugar, and trim the sides of the dish with Sugar, and so serve it up.

☞ A Norfolke foole.

A trifle.

Take a pint of the best and thickest Creame, and set it on the fire in a cleane Skiller, and put into it Sugar, Cinamon, and a Nutmegge cut into foure quarters, and so boyle it well: then put it into the dish you intend to serve it in, and let it stand to coole till it bee more then luke-warme: then put in a spoonefull of the best earning, and stirre it well about, and so let it stand till it be cold, and then strow Sugar upon it, and so serve it up, and this you may serve eyther in dish, glasse, or other plate.

A Calves-foot pie.

Take Calves feete well boild, and picke all the meate from the bones: then being cold shred it as small as you can, then season it with Cloves and Mace, and put in good store of Currants, Raisins, and Prunes: then put it into the coffin with good store of sweet Butter, then breake in whole sticks of Cinamon, and a Nutmegge slic't into foure quarters, and season it before with Salt:

then

then close up the coffin, and onely leave a vent-hole. When it is bak'd, draw it, and at the vent-hole put in the same liquor you put in the *Ling*-pie, and trim the lid after the same manner, and so serve it up.

Oysterpie. Take of the greatest *Oysters* drawne from the shells, and parboyle them in *Verjuyce*: then put them into a cullander, and let all the moysture runne from them, till they be as dry as possible: then raise up the coffin of the pie, and lay them in; then put to them good store of *Currants*, and fine powdred *Sugar*, with whole *Mace*, whole *Cloves*, whole *Cynamon* and *Nutmegge* slic'd, *Dates* cut, and good store of sweete *Butter*: then cover it, and onely leave a vent-hole: when it is bak'd, then draw it, and take *White-wine*, and *White-wine Vinegar*, *Sugar*, *Cynamon*, and sweete *Butter*, and melt it together; then first trim the lid therewith, and candy it with *Sugar*; then poure the rest in at the vent-hole and shake it well, and so set it into the Oven againe for a little space, and so serve it up, the dish edges trimm'd with *Sugar*. Now some use to put to this pie *Onyons* sliced and shred, but that is referred to discretion, and to the pleasure of the taste.

To recover Venison that is tainted. Take strong *Ale*, and put to it *Wine-vinegar* as much as will make it sharpe: then set it on the fire, and boyle it well, and skumme it, and make of it a strong brine with *Bay-salt*, or other *salt*: then take it off, and let it stand till it be cold, then put your *Venison* into it, and let it lie in it full twelve houres: then take it out from that meere sauce, and presse it well; then parboyle it, and season it with *Pepper* and *Salt*, and bake it, as hath beene before shewed in this Chapter.

A Chewet pie. Take the brawnes and the wings of *Capons*, and *Chickens* after they have beene roasted, and pull away the

skin; then shred them with the *Mutton-suet* very small; then season it with *Cloves*, *Mace*, *Cynamon*, *Sugar* and *Salt*: then put to *Raisins* of the Sunne, and *Currants*, and slic'd *Dates*, and *Orenge-pills*, and being well mixt together, put it into small coffins made for the purpose, and strow on the top of them good store of *Carraway-comfets*: then cover them, and bake them with a gentle heate, and these *Chewets* you may also make of roasted *Veale*, seasoned as before shewed, and of all parts the loyne is the best.

A minc'd-pie. Take a legge of *Mutton*, and cut the best of the flesh from the bone, and parboyle it well: then put to it three pound of the best *Mutton-suet*, and shred it very small: then spread it abroad, and season it with *Pepper* and *Salt*, *Cloves* and *Mace*: then put in good store of *Currants*, great *Raisins* and *Prunes* cleane wash'd and pick'd, a few *Dates* slic'd, and some *Orenge-pills* slic'd: then being all well mixt together, put it into a coffin, or into divers coffins, and so bake them: and when they are served up, open the lids, and strow store of *Sugar* on the top of the meate, and upon the lid. And in this sort you may also bake *Beefe* or *Veale*; only the *Beefe* would not be parboyl'd, and the *Veale* will aske a double quantity of *Suet*.

A Pippin pie. Take the faireſt and best *Pippins*, and pare them, and make a hole in the top of them; then pricke in each hole a *Clove* or two, then put them into the coffin, then breake in whole sticks of *Cynamon*, and slices of *Oreng-pills* and *Dates*, and on the top of every *Pippin* a little piece of sweet *Butter*; then fill the coffin, and cover the *Pippins* over with *Sugar*: then close up the Pie, and bake it, as you bake Pies of the like nature; and

and when it is bak'd, annoint the lidde over with store of sweete butter, and then strow Sugar upon it a good thicknesse, and set it into the oven againe for a little space, as while the meate is in dishing up, and then serve it.

Take of the faireſt and beſt *Wardens*, and pare them, and take out the hard cores on the top, and cut the sharpe ends at the bottome flat; then boyle them in *White wine* and *Sugar*, untill the sirrup grow thicke: then take the *Wardens* from the sirrup into a cleare dish, and let them coole; then set them into the coffin, and pricke *Cloves* in the tops, with whole sticks of *Cinnamon*, and great store of *Sugar*, as for *Pippins*, then cover it, and onely reserve a vent-hole, so set it in the oven and bake it: when it is bak'd, draw it forth, and take the first sirrup in which the *Wardens* were boyld, and taste it, & if it be not sweet enough, then put in more *Sugar* and some *Rosewater*, and boyle it againe a little, then powre it in at the venthole, and shake the pie well; then take sweet *Butter* and *Rosewater* melted, and with it annoint the pie-lid all over, and then strow upon it store of *Sugar*, and so set it into the oven againe a little space, & then serve it up. And in this manner you may also bake *Quinces*. A Warden-pie, or Quince-pie.

Take the beſt and sweeteſt worte, and put to it good store of *Sugar*, then pare and core the *Quinces* cleane, and put them therein, and boyle them till they grow tender: then take out the *Quinces* and let them coole, & let the pickle in which they were boyld, stand to coole also; then straine it through a raunge or sive, then put the *Quinces* into a sweet earthen pot, then poure the pickle or sirrup unto them, so as all the *Quinces* may be quite covered all over; then stoppe up the pot close, To preserve Quinces to bake all the yeare.

and set in a dry place, and once in sixe or seven weekes look into it; and if you see it shrinke, or doe begin to hoare or mould, then powre out the pickle or sirrup, and renewing it, boyle it over againe, and as before put it to the Quinces being cold, and thus you may preserve them for the use of baking, or otherwise all the yeere.

A pippen Tart. Take Pippins of the faireſt, and paire them, and then divide them just in the halfes, and take out the chores cleane: then having rold the coffin flat, and raised up a small verdge of an inch, or more high, lay in the Pippins with the hollow side downeward, as close one to another as may be: then lay here and there a Clove, and here and there a whole sticke of Cinamon, & a little bit of Butter: then cover all cleane over with Sugar, and so cover the coffin, and bake it according to the manner of Tarts; and when it is bak't, then draw it out, and having boyled Butter and Rosewater together, annoynt all the lid over therewith, and then scrape or strow on it good store of *Sugar*, and so set it in the oven againe, and after serve it up.

A codlin Tart. Take greene Apples from the tree, and codle them in scalding water without breaking; then pill the thin skin from them, and so divide them in halfes, and cut out the chores, and so lay them into the coffin, and doe in every thing as you did in the Pippin-tart; and before you cover it when the Sugar is cast in, see you sprinkle upon it good store of Rose-water, then close it, and doe as before shewed.

☞ A codling pie. Take Codlins as before said, and pill them and divide them in halfes, and chore them, and lay a leare thereof in the bottome of the pie: then scatter here and there a Clove, and here and there a piece of whole Cinamon; then cover them all over with Sugar, then lay another

another leare of *Codlins*, and doe as beforesaid, and so another, till the coffin be all filled, then cover all with *Sugar*, and here and there a *Clove* and a *Cinamon-sticke*, and if you will a slic'd *Orenge-pill* and a *Date*; then cover it and bake it as the Pyes of that nature: when it is bak'd, draw it out of the Oven, and take of the thickest and best *Creame* with good store of *Sugar*, and give it one boyle or two on the fire: then open the Pie, and put the *Creame* therein, and mash the *Codlins* all about; then cover it, and having trimm'd the lid (as was before shewed in the like Pies and Tarts) set it into the Oven againe for halfe an houre; and to serve it forth.

Take the faireſt *Cherries* you can get, and picke them cleane from leaves and stalkes: then spread out your coffin, as for your *Pippin-tart*, and cover the bottome with *Sugar*; then cover the *Sugar* with *Cherries*, then cover those *Cherries* with *Sugar*, some sticks of *Cinamon*, and here and there a *Clove*: then lay in more *Cherries*, and so more *Sugar*, *Cinamon* and *Cloves*, till the coffin be filled up: then cover it, and bake it in all points as the *Codlin* and *Pippin-tart*, and so serve it: and in the same manner you may make Tarts of *Gooseberries*, *Strawberries*, *Rasberries*, *Bilberries*, or any other Berry whatsoever. A Chery Tart.

Take *Rice* that is cleane picked, and boyle it in sweet *Creame*, till it be very soft: then let it stand and coole; and put into it good store of *Cinamon* and *Sugar*, and the yolkes of a couple of *Eggs*, and some *Currants*, stirre and beate all well together: then having made the coffin in the manner beforesaid, for other Tarts, put the *Rice* therein, and spread it all over the coffin: then breake many little bits of sweet *Butter* upon it all over, A Rice Tart.

and scrape some Sugar over it also, then cover the Tart, and bake it, and trim it in all points, as hath beene before shewed, and so serve it up.

A Florentine. Take the Kidneys of Veale after it hath beene well roasted, and is cold; then shred it as fine as is possible; then take all sorts of sweet pot-herbes, or seasoning-herbs, which have no bitter or strong taste, and chop them as small as may be, and putting the Veale into a large dish, put the herbes unto it, and good store of cleane wash'd Currants, Sugar, Cinamon, the yolkes of foure Egges, a little sweete Creame warmed, and the fine grated crummes of a halfe penny loafe and Salt, and mixe all exceeding well together: then take a deepe Pewter-dish, and in it lay your paste very thine rol'd out, which paste you must mingle thus: Take of the fineſt wheat-flower a quart, and a quarter so much Sugar; and a little Cinamon; then breake into it a couple of Egges, then take sweet Creame and Butter melted on the fire, and with it kneed the paste, and as was before said, having spread Butter all about the dishes sides: then put in the Veale, and breake pieces of sweet Butter upon it, and scrape Sugar over it; then role out another paste reasonable thicke, and with it cover the dish all over, closing the two pastes with the beaten whites of Egs very fast together; then with your knife cut the lid into divers pretty workes according to your fancy; then set it in the Oven, and bake it with Pies and Tarts of like nature: when it is bak'd, draw it, and trim the lid with Sugar, as hath beene shewed in Tarts and so serve it up in your second courses.

A Prune Tart. Take of the faireſt Damaske Prunes you can get, and put them in a cleane Pippin with faire water, Sugar, unbruised Cinamon, and a braunch or two of Rose-

mary,

mary, and if you have bread to bake, ſtew them in the oven with our bread: if otherwiſe, ſtew them on the fire: when they are ſtewed, then bruiſe them all to maſh in their ſirrup, and ſtrayne them into a cleane diſh; then boyle it over againe with Sugar, Cinamon, and Roſe-water, till it be thicke as Marmalad: then ſet it to coole, then make a reaſonable tuffe paſt with fine flower, Water, and a little Butter, and role it out very thinne: then having patterns of paper cut into divers proportions, as Beaſts, Birds, Armes, Knots, Flowers, and ſuch like: Lay the patternes on the paſte, and ſo cut them accordingly: then with your fingers pinch up the edges of the paſte, and ſet the worke in good proportion: then pricke it well all over for riſing, and ſet it on a cleane ſheet of large paper, and ſo ſet it into the Oven, and bake it hard; then draw it, and ſet it by to coole: and thus you may doe by a whole Oven full at one time, as your occaſion of expence is: then againſt the time of ſervice comes, take off the confection of prunes before rehearſed, and with your Knife, or a ſpoone fill the coffin according to the thickneſſe of the verge; then ſtrow it over all with Carraway comfets, and pricke long comfets upright in it, and ſo taking the paper from the bottome, ſerve it on a place in a diſh or charger, according to the bigneſſe of the tart, and at the ſecond courſe, and this tart carrieth the colour blacke.

Take apples and pare them, and ſlice them thin from the chore into a pipkin with White-wine, good ſtore of Sugar, Cinamon, a few Saunders and Roſewater and boyle it till it be thicke, then coole it, and ſtraine it, and beate it very well together with a ſpoone: then put it into the coffin as you did the Prune tart, and

Apple-tart.

adorne it also in the same manner, and this tart you may fill thicker or thinner, as you please to raise the edge of the coffin, and it carrieth the colour red.

A Spinage tart. Take good store of Spinage, and boyle it in a pipkin, with White-wine till it be very soft as pap: then take it and straine it well into a pewter dish, not leaving any part unstrained: then put to it Rose-water, great store of Sugar and Cinamon, and boyle it till it be as thicke as Marmalad, then let it coole, and after fill your coffin, and adorne it, and serve it in all points as you did your Prune-tart, and this carrieth the colour greene.

A yellow tart. Take the yolkes of egges, and break away the filmes, and beate them well with a little creame: then take of the sweetest and thickest creame that can be got, and set it on the fire in a cleane skillet, and put into it sugar, cinamon and rose-water, and then boyle it well: when it is boyld, and still boyling, stirre it well, and as you stirre it, put in the eggs, and so boyle it till it curdle; then take it from the fire, and put it into a strainer, and first let the thinne whay runne away into a by dish, then straine the rest very well; and beate it well with a spoone, and so put it into the tart coffin, and adorne it as you did your Prune-tart, and so serve it: this carrieth the colour yellow.

A white tart. Take the whites of eggs and beat them with rose-water, and a little sweet creame: then set on the fire good thicke sweet creame, and put into it sugar, cinamon, rose-water, and boyle it well, and as it boyles stirre it exceedingly, and in the stirring put in the whites of eggs; then boyle it till it curdle, and after doe in all things as you did to the yellow tart; and this carrieth the colour white, and it is a very pure white, and therefore would be adorned with red carraway comfets, and as this so

with blaunched Almonds like white Tarts and full as pure. Now you may (if you please) put all these severall colours, and severall stuffes into one Tart, as thus: If the tart be in the proportion of a beast, the body may be of one colour, the eyes of another, the teeth of another, and the talents of another; and so of birds. The body of one colour, the eyes another, the legges of another, and every feather in the wings of severall colour according to fancy: and so likewise in armes, the field of one colour, the charge of another, according to the forme of the Coat armour; as for the mantles, trailes and devices about armes, they may be set out with severall colours of preserves, conserves, marmelads, and goodinyakes, as you shall finde occasion or intention; and so likewise of knots, one traile of one colour, and another of another, and so of as many as you please.

Of inanducting stuffe and conceited dishes.

Take sorrell, spinage, parsley, and boyle them in water till they be very soft as pap, then take them up, and presse the water cleane from them, then take good store of yolkes of Egges boild very hard, and chopping them with the hearbs exceeding small, then put in good store of currants, sugar, and cynamon, and stirre all well together; then put them into a deep tart coffin with good store of sweet butter, and cover it, and bake it like a pippin tart, and adorne the lid after the baking in that manner also, and so serve it up.

An herbe tart.

To bake a pudding-pie.

Take a quart of the best creame, and set it on the fire, and slice a loafe of the lightest white bread into thin slices, and put into it, and let it stand on the fire till the milke begin to rise; then take it off, and put it into a bason, and let it stand till it be cold: then put in the yolkes of foure eggs, and two whites, good store of currants,

Sugar,

ſugar, cinnamon, cloves, mace, and plenty of ſheepes ſuet finely ſhred, and a good ſeaſon of ſalt; then trimme your pot very well round about with butter, and ſo put in your puddings, and bake it ſufficiently, then when you ſerve it, ſtrow ſugar upon it.

A white-pot.

Take the beſt and ſweeteſt creame, and boile it with good ſtore of ſugar, and cinamon, and a little roſe-water, then take it from the fire and put into it clean pickt ryce, but not ſo much as to make it thick, and let it ſteep there ſtill it be cold; then put in the yolks of ſix egges, & two whites, currants, ſugar, cinamon, and roſe-water, and ſalt, then put it into a pan, or pot, as thin as if it were a tart, and ſo bake it and ſerve it in the pot it is baked in, trimming the top with ſugar or comfets.

Of banqueting ſtuffe and conceited diſhes.

There are a world of other Bak't meats and Pies, but for as much as whoſoever can doe theſe may doe all the reſt, becauſe herein is contained all the Art of ſeaſonings, I will trouble you with no further repetitions, but proceede to the manner of making of Banqueting ſtuffe and conceited diſhes, with other pretty and curious ſecrets, neceſſary for the underſtanding of our Engliſh Houſ-wife: for albeit they are not of generall uſe, yet in their due times they are ſo needfull for adornation, that whoſoever is ignorant therein, is lame, and but the halfe part of a compleat Houſ-wife.

To make paſte of Quinces.

To make paſte of Quinces: firſt boyle your Quinces whole and when they are ſoft, pare them and cut the Quinces from the core; then take the fineſt ſugar you can get finely beaten and ſearſed, and put in a little Roſewater and boile it together till it be thicke: then put in the cut Quinces and ſo boyle them together till it be ſtiffe enough to mould, and when it is cold, then role it and print it; a pound of Quinces

will

will take a pound of Sugar, or neere there abouts.

To make thin Quine-cakes, take your Quince when it is boyled soft as before said, and dry it upon a Pewter-plate with soft heat, and be ever stirring of it with a slice till it be hard; then take fearced Sugar quantity for quantity, and strow into the Quince, as you beat it in a wooden or stone morter; and so role them thin & print them. To make thin quince cakes.

To preserve Quinces: first pare your Quinces, and take out the cores, and boyle the cores and parings all together in faire water, and when they begin to be soft, take them out and streyne your liquor, and put the weight of your Quinces in Sugar, and boile the Quinces in the sirrup till they be tender; then take them up and boyle your sirrup till it be thicke: If you will have your Quinces red, cover them in the boyling, and if you will have them white, doe not cover them. To preserve Quinces.

To make Ipocras, take a pottle of wine, two ounces of good Cinamon, halfe an ounce of Ginger, nine Cloves, and six Pepper corns, & a Nutmeg, and bruise the ginger, and put them into the wine with some Rosemary flowers, and so let them steep all night, and then put in Sugar a pound at least; & when it is well setled, strain it through a woollen bag made for that purpose: thus if your wine be Claret, your Ipocras will be red, if white, of that color also. To make Ipocras.

To make the best Ielle, take Calves feet and wash them and scald off the haire as cleane as you can get it: then split them and take out the fat and lay them in water, and shift them; then boyle them in faire water, untill it will jelly, which you shall know by now and then cooling a spoonfull of the broth; when it will jelly then streyne it, and when it is cold then put in a pint of Sacke and whole Cinamon and Ginger slic'd, and Sugar and a little Rose-water, and boyle all well together againe: To make jelly.

Then

Then beate the white of an *Egge* and put it into it, and let it have one boyle more: then put in a branch of *Rosemary* into the bottome of your jelly bagge, and let it runne thorow once or twice, and if you will have it coloured, then put in a little Townesall. Also if you want *calves feet*, you may make as good *Jelly* if you take the like quantity of *Isinglasse*, and louse no *Calves feet* at all.

To make the best *Leach*, take *Isinglasse*, and lay it two houres in water, and shift it, and boyle it in faire water, and let it coole: Then take *Almonds* and lay them in cold water till they will blaunch: And then stampe them and put to new *Milke*, and straine them, and put in whole *Mace* and *Ginger* slic'd; and boyle them till it taste well of the spice; then put in your *Isinglasse* and *Sugar*, and a little *Rose-water*: and then let them all runne thorow a strainer.

To make Ginger-bread. Take *Claret wine*, and colour it with *Townesall*, and put in *Sugar*, and set it on the fire; then take *Wheat bread* finely grated and sifted, and *Liquorice*, *Aniseeds*, *Ginger* and *Cinamon*, beaten very small and searsed; and put your bread and your spice all together, and put them into the wine and boyle it, and stirre it till it be thicke: then mould it and print it at your pleasure, and let it stand neither too moyst, nor too warme.

Marmalade of Quinces red. To make *Marmelade* of *Quinces*: take a pound of *Quinces* and cut them in halfes, and take out the cores and pare them: then take a pound of *Sugar*, and a quart of faire water, and put them all into a pan, and let them boyle with a soft fire, and sometimes turne them, and keepe them covered with a Pewter-dish, so that the steamme of ayre may come a little out: the longer they are in boyling, the better colour they will have: and

when

when they be soft take a knife and cut them crosse upon the top, it will make the sirrup goe through that they may be all of the like colour: then set a little of your sirrope to coole, and when it beginneth to be thicke then breake your quinces with a slice or a spoone so small as you can in the pan, and then strow a little fine sugar in your boxes bottome, and so put it up.

To make white Marmalade you must in all points use your quinces as is before said; only you must take but a pint of water to a pound of quinces, and a pound of Sugar, and boyle them as fast as you can, and cover them not at all. Marmalad white.

To make the best Iumbals, take the whites of three egges and beate them well, and take of the froth; then take a little milke and a pound of fine wheat flower and sugar together finely sifted, and a few Aniseeds well rub'd and dried; and then worke all together as stiffe as you can worke it, and so make them in what formes you please, and bake them in a soft oven upon white Papers. To make Iumbals.

To make Bisket bread, take a pound of fine flower, and a pound of Sugar finely beaten and searsed, and mix them together; Then take eight egges and put foure yolkes and beate them very well together; then strow in your flower and sugar as you are beating of it, by a little at once it will take very neere an houres beating; then take halfe an ounce of Aniseeds and Coriander seeds and let them be dried and rubbed very clean, and put them in; then rub your Bisket-pans with cold sweet butter as thin as you can, and so put it in and bake it in an oven: but if you would have thinne Cakes, then take fruit-dishes and rub them in like sort with butter, and so bake your Cakes on them, and when they To make Bisket-bread.

they are almoſt bak'd, turne them, and thruſt them downe cloſe with your hand. Some to this Biſket bread will adde a little Creame, and it is not amiſſe, but excellent good alſo.

To make finer Iumballs.

To mage Iumbals more fine and curious than the former, and neerer to the taſte of the Macaroone: take a pound of ſugar, beate it fine, then take as much fine wheat flower and mixe them together, then take two whites and one yolke of an egge, halfe a quarter of a pound of blaunched Almonds, then beate them very fine all together with halfe a diſh of ſweet butter, and a ſpoonfull of Roſe-water, and ſo worke it with a little Creame till it come to a very ſtiffe paſte, then roule them forth as you pleaſe: And hereto you ſhall alſo, if you pleaſe, adde a few dried Aniſeeds finely rubbed and ſtrewed into the paſte, and alſo Coriander ſeed.

To make drye Sugar leach.

To make dry ſugar Leache, blaunch your Almonds and beat them with a little Roſe-water and the white of one egge, and you muſt beat it with a great deale of ſugar, and worke it as you would work a piece of paſte: then roule it and print it as you did other things, onely bee ſure to ſtrew ſugar in the print for feare of cleaving too.

To make leach Lumbard.

To make Leache Lumbard, take halfe a pound of blaunched Almonds, two ounces of Cinamon beaten and ſearſed, halfe a pound of ſugar, then beate your Almonds, and ſtrew in your ſugar and Cynamon till it come to a paſte, then roule it and print it, as aforeſaid.

To make freſh Cheeſe.

To make an excellent freſh cheeſe, take a pottle of Milke as it comes from the Cow, and a pint of Creame: then take a ſpoonefull of runnet or earning, and put it unto it, and let it ſtand two houres: then ſtirre it up,

and

and put it into a fine cloth, and let the whey drayne from it: then put it into a bowle, and take the yolke of an *Egge*, a spoonfull of *Rose-water*, and bray them together with a very little *Salt*, with *Sugar* and *Nutmegges*, and when all these are brayed together, and searst, mixe it with the curd, and then put it in the Cheese-fat with a very fine cloth.

How to make course Ginger-bread.

To make course *Ginger bread*, take a quart of *Hony*, and set it on the coales and refine it: then take a penny worth of *Ginger*, as much *Pepper*, as much *Licoras*, and a quarter of a pound of *Aniseeds*, and a penny-worth of *Saundars*: All these must be beaten and searsed, and so put into the *Hony*: then put in a quarter of a pint of *Claret-wine* or old *Ale*; then take three penny *Manchets* finely grated and strow it amongst the rest, and stirre it till it come to a stiffe paste, and then make it into cakes, and dry them gently.

How to make Quince-cakes ordinary.

To make ordinary *Quince-cakes*, take a good piece of a preserved *Quince*, and beate it in a Morter, and worke it up into a very stiffe paste with fine searst *Sugar*; then print it, and dry them gently.

How to make Cinamon-stickes.

To make most Artificiall *Cynamon-stickes*, take an ounce of *Cynamon*, and pound it, and halfe a pound of *Sugar*: then take some *Gumme Dragon*, and put it in steepe in *Rose-water*, then take thereof to the quantity of a *Hasall nut*, and worke it out and print it, and role it in forme of a *Cynamon-sticke*.

How to make Cinamon-water.

To make *Cynamon water*, take a pottle of the best *Ale*, and a portle of *Sack-lees*; a pound of *Cynamon* sliced fine, and put them together, and let them stand two daies; then distill them in a *Limbecke*, or *Glasse-Still*.

How to make Wormewood-water.

To make *Wormewood water*, take two gallons of good *Ale*, a pound of *Aniseedes*, halfe a pound of *Li-*

they are almoſt bak'd, turne them, and thruſt them downe cloſe with your hand. Some to this Biſket bread will adde a little Creame, and it is not amiſſe, but excellent good alſo.

To make finer Iumballs.

To mage Iumbals more fine and curious than the former, and neerer to the taſte of the Macaroone: take a pound of ſugar, beate it fine, then take as much fine wheat flower and mixe them together, then take two whites and one yolke of an egge, halfe a quarter of a pound of blaunched Almonds, then beate them very fine all together with halfe a diſh of ſweet butter, and a ſpoonfull of Roſe-water, and ſo worke it with a little Creame till it come to a very ſtiffe paſte, then roule them forth as you pleaſe: And hereto you ſhall alſo, if you pleaſe, adde a few dried Aniſeeds finely rubbed and ſtrewed into the paſte, and alſo Coriander ſeed.

To make drye Sugar leach.

To make dry ſugar Leache, blaunch your Almonds and beat them with a little Roſe-water and the white of one egge, and you muſt beat it with a great deale of ſugar, and worke it as you would work a piece of paſte: then roule it and print it as you did other things, onely bee ſure to ſtrew ſugar in the print for feare of cleaving too.

To make leach Lumbard.

To make Leache Lumbard, take halfe a pound of blaunched Almonds, two ounces of Cinamon beaten and ſearſed, halfe a pound of ſugar, then beate your Almonds, and ſtrew in your ſugar and Cynamon till it come to a paſte, then roule it and print it, as aforeſaid.

To make freſh-Cheeſe.

To make an excellent freſh cheeſe, take a pottle of Milke as it comes from the Cow, and a pint of Creame: then take a ſpoonefull of runnet or earning, and put it unto it, and let it ſtand two houres: then ſtirre it up,

and

and put it into a fine cloth, and let the whey drayne from it: then put it into a bowle, and take the yolke of an *Egge*, a ſpoonfull of *Roſe-water*, and bray them together with a very little *Salt*, with *Sugar* and *Nutmegges*, and when all theſe are brayed together, and ſearſt, mixe it with the curd, and then put it in the Cheeſe-fat with a very fine cloth.

How to make courſe Ginger-bread.

To make courſe *Ginger bread*, take a quart of *Hony*, and ſet it on the coales and refine it: then take a penny worth of *Ginger*, as much *Pepper*, as much *Licoras*, and a quarter of a pound of *Aniſeeds*, and a penny-worth of *Saundars*: All theſe muſt be beaten and ſearſed, and ſo put into the *Hony*: then put in a quarter of a pint of *Claret-wine* or old *Ale*; then take three penny *Manchets* finely grated and ſtrow it amongſt the reſt, and ſtirre it till it come to a ſtiffe paſte, and then make it into cakes, and dry them gently.

How to make Quince-cakes ordinary.

To make ordinary *Quince-cakes*, take a good piece of a preſerved *Quince*, and beate it in a Morter, and worke it up into a very ſtiffe paſte with fine ſearſt *Sugar*; then print it, and dry them gently.

How to make Cinamon-ſtickes.

To make moſt Artificiall *Cynamon-ſtickes*, take an ounce of *Cynamon*, and pound it, and halfe a pound of *Sugar*: then take ſome *Gumme Dragon*, and put it in ſteepe in *Roſe-water*, then take thereof to the quantity of a *Haſall nut*, and worke it out and print it, and role it in forme of a *Cynamon-ſticke*.

How to make Cinamon-water.

To make *Cynamon-water*, take a pottle of the beſt *Ale*, and a pottle of *Sack-lees*; a pound of *Cynamon* ſliced fine, and put them together, and let them ſtand two daies; then diſtill them in a *Limbecke*, or *Glaſſe-Still*.

How to make Wormewood-water.

To make *Wormewood water*, take two gallons of good *Ale*, a pound of *Aniſeedes*, halfe a pound of *Li-*

coras, and beate them very fine; And then take two good handfulls of the crops of *Wormewood*, and put them into the *Ale*, and let them stand all night, and then distill them in a *Limbecke* with a moderate fire.

To make sweet water.

To make *Sweet water* of the best kinde, take a thousand *Damaske Roses*, two good handfulls of *Lavender-tops*, a three peny weight of *Mace*, two ounces of *Cloves* bruised, a quart of *running-water*; put a little water into the bottome of an earthen-pot, and then put in your *Roses* and *Lavender*, with the spices by little and little, and in the putting in, alwaies kneed them downe with your fist, and so continue it untill you have wrought up all your *Roses* and *Lavender*, and in the working between put in alwaies a little of your water; then stop your pot close, and let it stand foure daies, in which time every morning and evening put in your hand, and pull from the bottome of your pot the said *Roses*, working it for a time: and then distill it, and hang in the glasse of water, a graine or two of *Muske* wrapt in a piece of Sarcenet, or fine cloth.

Another way.

Others to make *Sweet water*, take of *Irees* two ounces, of *Calamus* halfe an ounce, of *Cipresse-roots* halfe an ounce, of yellow *Saunders* nine drams, of *Cloves* bruised one ounce, of *Benjamin* one ounce, of *Storax* and *Calamint* one ounce, and of *Muske* twelve graines, and infusing all these in *Rose water*, distill it.

To make Date Leach.

To make an excellent *Date-Leach*, take *Dates*, and take out the stones and the white rinde, and beat them with *Sugar*, *Cinamon* and *Ginger*, very finely, then worke it as you woul worke a piece of paste, and then print them as you please.

To make sugar plate.

To make a kinde of *Sugar-plate*, take *Gumme Dragon*, and lay it in *Rose-water* two daies; then take the pow-

der

der of faire Heps and Sugar, and the juyce of an Orenge; beat all theſe together in a Morter, then take it out and worke it with your hand: and then print it at your pleaſure.

To make excellent ſpice-cakes, take halfe a pecke of very fine wheat-flower, take almoſt one pound of ſweet Butter, and ſome good Milke and Creame mixt together, ſet it on the fire, and put in your Butter, and a good deale of Sugar, and let it melt together; then ſtreine Saffron into your Milke a good quantity; then take ſeven or eight ſpoonfulls of good Ale-barme, and eight Egges with two yolkes and mixe them together, then put your Milke to it when it is ſomewhat cold, and into your flower put ſalt, Aniſeeds bruiſed, Cloves and Mace, and a good deale of Cinamon: then worke all together good and ſtiffe, that you need not worke in any flower after; and then put in a little Roſe-water cold, then rub it well in the thing you kneed it in, and worke it throughly: if it be not ſweet enough, ſcrape in a little more Sugar, and pull it all in pieces, and hurle in a good quantity of Currants, and ſo worke all together againe, and bake your Cake as you ſee cauſe in a gentle warme Oven. To make ſpice cakes.

To make a very good Banbury Cake, take foure pound of Currants, and waſh and pick them very cleane, and dry them in a cloth: then take three Egges, and put away one yolke, and beat them, and ſtreine them with Barme, putting thereto Cloves and Mace, Cinamon and Nutmegges, then take a pint of Creame, and as much mornings Milke, and ſet it on the fire till the cold be taken away; then take flower, and put in good ſtore of cold Butter and Sugar, then put in your Egges, Barme, and Meale, and worke them all together an houre or To make a Banbury cake.

more: then save a part of the paste, and the rest breake in pieces, and worke in your Currants; which done, mold your Cake of what quantity you please; and with that paste which hath not any Currants cover it very thin both underneath and aloft. And so bake it according to the bignesse.

To make the best March-pane.

To make the best March-pane, take the best Iordan Almonds and blaunch them in warme water, then put them into a stone-morter, and with a wooden pestell, beate them to pappe, then take of the finest refined Sugar well searst, and with it Damaske Rose-water, beate it to a good stiffe paste, allowing almost to every Iordan Almond three spoonfulls of Sugar; then when it is brought thus to paste, lay it upon a faire Table, and strowing searst Sugar under it, mold it like leaven, then with a roling-pin role it forth, and lay it upon wafers washt with Rose-water; then pinch it about the sides, and put it into what forme you please; then strow searst Sugar all over it; which done, wash it over with Rose-water and Sugar mixt together, for that will make the Ice; then adorne it with Comfers, guilding, or whatsoever devices you please, and so set it into a hot stove, and there bake it crispie, and so serve it forth. Some use to mixe with the paste Cinamon and Ginger finely searst, but I referre that to your particular taste.

To make paste of Genoa, or any other paste

To make paste of *Genoa*, you shall take Quinces after they have beene boyled soft, and beate them in a Morter with refined Sugar, Cinamon and Ginger finely searst, and *Damaske Rose-water*, till it come to a stiffe paste; and role it forth and print it, and so bake it in a stove; and in this sort you may make paste of *Peares, Apples, Wardens, Plummes* of all kindes, *Cherries, Barberries*; or what other fruit you please.

To

To make any Conserve.

To make concerve of any fruit you please you shall take the fruit you intend to make conserve of: and if it be stone-fruit you shall take out the stones: if other fruit take away the paring and core, and then boyle them in faire running water to a reasonable height: then draine them from thence, and put them into a fresh vessell with Claret wine, or White wine, according to the colour of the fruit: and so boyle them to a thicke pap all to mashing, breaking and stirring them together: then to every pound of pap put to a pound of Sugar, and so stirre them all well together, and being very hot straine them through faire strainers, and so pot it up.

To make conserve of flowers.

To make conserve of flowers, as Roses, Violets, Gilliflowers, and such like: you shall take the flowers from the stalkes, and with a paire of sheeres cut away the white ends at the rootes thereof, and then put them into a stone morter or wodden brake, and there crush or beate them till they be come to a soft substance: and then to every pound thereof, take a pound of fine refined sugar well searst and beate it all together, till it come to one intire body, and then pot it up, and use it as occasion shall serve.

To make Wafers.

To make the best Wafers, take the finest wheat-flower you can get, and mixe it with creame, the yolkes of Egges, Rose-water, Sugar and Cinamon till it be a little thicker then Pan-cake-batter; and then warming your wafer-irons on a charcoale-fire, annoint them first with sweet butter, and then lay on your batter and presse it, and bake it white or browne at your pleasure.

To make Marmalade of Oranges.

To make an excellent Marmalade of Oranges, take the Oranges, and with a Knife pare off as thin as is possible the uppermost rinde of the Orange: yet in such

sort, as by no meanes you alter the color of the Orange; then steepe them in faire water, changing the water twice a day, till you finde no bitternesse of taste therein; then take them forth, and first boile them in faire running water, and when they are soft, remove them into rosewater, and boyle them therein till they breake: then to every pound of the pulpe put a pound of refined sugar, and so having masht and stirred them all well together, straine it through very faire strainers into boxes, and so use it as you shall see occasion.

Additions, to banqueting-stuffe.

To make fine Cakes.

Take a pottle of fine flower, and a pound of Sugar, a little Mace, and good store of water to mingle the flower into a stiffe paste, and a good season of salt, and so knead it, and role out the cake thinne and bake them on papers.

Fine bread.

Take a quarter of a pound of fine sugar well beaten, and as much flower finely boulted, with a quantity of Aniseeds a little bruised, and mingle altogether: then take two egges and beate them very well, whites and all; then put in the mingled stuffe aforesaid, and beat all together a good while, then put it into a mould, wiping the bottome ever first with butter to make it come out easily, and in the baking turne it once or twice as you shall have occasion, and so serve it whole, or in slices at your pleasure.

To preserve Quinces for kitchin service.

Take sweet Apples, and stampe them as you doe for Sider, then presse them through a bagge as you doe verjuyce, then put it into a ferkin wherein you will keepe your Quinces, and then gather your Quinces, and wipe them cleane, and neither chore them nor pare them, but onely take the blacks from the tops, and so put them into the ferkin of Sider, and therein you may keepe them all the yeere very faire, and take them not out

of

of the liquor, but as you are ready to use them, whether it be for pies, or any other purpose, and then pare them, and core them as you thinke good.

Take a gallon of Claret or White-wine, and put therein foure ounces of Ginger, an ounce and a halfe of Nutmegges, of Cloves one quarter, of Sugar foure pound; let all this stand together in a pot at least twelve houres, then take it, and put it into a cleane bagge made for the purpose, so that the wine may come with good leasure from the spices. To make Ipocras.

Take Quinces, and wipe them very cleane, and then core them, and as you core them, put the cores streight into faire water, and let the cores and the water boyle; when the water boyleth, put in the Quinces unpared, and let them boyle till they be tender, and then take them out and pare them, and ever as you pare them, put them streight into *Sugar* finely beaten: then take the water they were sodden in, and strein it thorow a faire cloth, and take as much of the same water as you thinke will make sirrup enough for the Quinces, and put in some of your *Sugar*, and let it boyle a while, and then put in your Quinces, and let them boyle a while and turne them, and cast a good deale of *Sugar* upon them; they must seethe apace, and ever as you turne them, cover them still with *Sugar*, till you have bestow'd all your *Sugar*; and when you thinke that your Quinces are tender enough, take them forth, and if your sirrup be not stiffe enough, you may seethe it againe after the Quinces are forth. To every pound of Quinces you must take more then a pound of *Sugar*: for the more *Sugar* you take, the fairer your Quinces will be, and the better and longer they will be preserved. To preserve Quinces.

Conserve of Quinces.

Take two gallons of faire water, and set it on the fire, and when it is luke-warme, beate the whites of five or sixe Egs, and put them into the water, and stirre it well, and then let the water seethe, and when it riseth up all on a curd, then soumme it off: Take Quinces and pare them, and quarter them, and cut out the cores: then take as many pound of your Quinces as of your Sugar, and put them into your liquor, and let it boyle till your liquor be as high coloured as *French* Wine, and when they be very tender, then take a faire new canvase cloth faire wash'd and streine your Quinces through it with some of your liquor; (if they will not goe thorow easily,) then if you will make it very pleasant, take a little Muske, and lay it in Rose-water, and put it thereto; then take and seethe it, untill it be of such substance, that when it is cold, it will cut with a knife; and then put it into a faire boxe, and if you please, lay leafe-gold thereon.

☞ To keepe Quinces all the yeere.

Take all the parings of your Quinces that you make your Conserves withall, and three or foure other Quinces, and cut them in pieces, and boyle the same parings, and the other pieces in two or three gallons of water, and so let them boyle till all the strength be sodden out of the said Quinces and parings, and if any skumme arise whilest it boyles, take it away: then let the said water runne thorow a streiner into a faire vessell, and set it on the fire againe, and take your Quinces that you will keepe, and wipe them cleane, and cut off the uttermost part of the said Quinces, and picke out the kernells and cores as cleane as you can; and put them into the said liquor, and so let them boile till they be a little soft, and then take them from the fire, and let them stand till they be cold:

then take a little barrell, and put into the said barrell, the water that your Quinces be sodden in; then take up your Quinces with a ladle, and put them into your barrell, and stop your barrell close that no ayre come into them, till you have fit occasion to use them; and be sure to take such Quinces as are neither bruised nor rotten.

Take of the best Sugar, and when it is beaten, searse it very fine, and of the best Ginger and Cinamon, then take a little Gum-dragon, and lay it in Rose-water all night, then powre the water from it, and put the same with a little white of an Egge well beaten into a brasse-mortar, the Sugar, Ginger, Cinamon, and all together, and beat them together till you may worke it like paste; then take it and drive it forth into cakes, and print them, and lay them before the fire, or in a very warme Stove to bake. Or otherwise, take Sugar and Ginger (as is before said) Cinamon and Gum-dragon excepted, in stead whereof, take onely the whites of Egges, and so doe as was before shewed you. Fine Ginger-cakes.

Take Curds, the paring of Lemons, of Orenges or Pouncitrons, or indeede any half ripe greene fruite, and boyle them till they be tender in sweet wort; then make a sirrup in this sort: take three pound of Sugar, and the whites of foure Egges, and a gallon of water, then swinge and beate the water and Egges together; and then put in your Sugar, and set it on the fire, and let it have an easie fire, and so let it boyle sixe or seven walmes, and then streine it thorow a cloth, and let it seethe againe till it fall from the spoone, and then put it into the the rindes or fruits. To make Suckets.

Take a quart of Hony clarified, and seethe it till it be browne, and if it be thicke put to it a dish of water: Course Ginger-bread.

then take fine crummes of white bread grated, and put to it, and ſtirre it well, and when it is almoſt cold, put to it the powder of Ginger, Cloves, Cinamon, and a little Licoras and Aniſeedes: then kneed it, and put it into moulds and print it; ſome uſe to put to it alſo a little Pepper, but that is according unto taſt and pleaſure.

'To Candy any roote, fruit or flower.

Diſſolve *Sugar*, or *Sugar-candy* in *Roſe-water*, boyle it to an height, put in your roots, fruits, or flowers, the ſirrup being cold, then reſt a little, after take them out and boyle the ſirrup againe, then put in more roots, &c. then boyle the ſirrup the third time to an hardneſſe, putting in more *Sugar*, but not *Roſe water*, put in the roots, &c. the ſirrup being cold, and let them ſtand till they candy.

Ordering of Banquets.

Thus having ſhewed you how to Preſerve, Conſerve, candy, and make paſtes of all kinds, in which foure heads conſiſts the whole art of banqueting diſhes; I will now proceed to the ordering or ſetting forth of a Banquet, wherein you ſhall obſerve, that *March-paues* have the firſt place, the middle-place and laſt place; your preſerved fruits ſhall be diſh'd up firſt, your paſtes next, your wet Suckets after them, then your dryed Suckets, then your *Marmalader*, and *Goodiſlakes*, then your *Comfets* of all kindes; Next your *Peares*, *Appler*, *wardens* back'd, raw or roſted, and your *Orenges* and *Lemons* ſliced; and laſtly, your *Wafer cakes*. Thus you ſhall order them in the cloſet: but when they goe to the Table, you ſhall firſt ſend forth a diſh made for ſhew only, as *Beaſt*, *Bird Fiſh*, *Fowle*, according to the invention: then your *March-paue*, then preſerved fruite, then a Paſte, then a wet Sucket, then a dry Sucket, *Marmalade*, *Comfets*, *Apples*, *Peares*, *Wardens*, *Orenges* and *Lemons*, ſliced; and then *Wafers*, and another diſh of preſerved fruites, and

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so consequently all the rest before, no two dishes of one kinde going or standing together, and this will not onely appeare delicate to the eye, but invite the appetite with the much variety thereof.

Ordering of great Feasts, and proportion of expence.

Now we have drawne our *House-wife* into these severall Knowledges of Cookery, in as much as in her is contained all the inward offices of houshould, wee will proceede to declare the manner of serving and setting forth of meat for a great Feast, and from it derive meaner, making a due proportion of all things: for what availes it our good *House wife* to be never so skilfull in the parts of Cookery, if shee want skill to marshall the dishes, and set every one in his due place, giving precedency according to fashion and custome: It is like to a Fencer leading a band of men in rout, who knowes the use of the weapon, but not how to put men in order. It is then to be understood, that it is the office of the Clerk of the Kitchin (whose place our *House-wife* must many times supply) to order the meat at the Dresser, and deliver it unto the Sewer, who is to deliver it to the Gentlemen and Yeomen-waiters to beare to the Table. Now because wee allow no offices but our *House-wife*, to whom wee onely speake in this Booke, shee shall first marshall her Sallets, delivering the grand Sallet first, which is evermore compound: then greene Sallets, then boil'd Sallets, then some smaller compound Sallets. Next unto Sallets, she shall deliver forth all her Fricases, the simple first; as Collops Rashers, and such like: the compound Fricases; after them all her boyl'd meats in their degree, as simple broths, stew'd-broth, and the boyling of sundry fowles. Next them, all sorts of roast-meats, of which the greatest first as chine of Beefe, or surloyne, the gigget or legges of Mutton, Goose, Swan, Veale,

Veale, Pig, Capon, and such like. Then bak'd-meats, the hot first, as Fallow-deere in Pasty, Chicken, or Calves-foot-pie and Dowset. Then cold bao'd-meats, Pheasant, Partridges, Turky, Goose, Wood-cocke, and such like. Then lastly, Carbonadoes, both simple and compound. And being thus marshall'd from the Dresser, the Sewer upon the placing them on the Table, shall not set them downe as he received them, but setting the Sallers extravagantly about the Table, mixe the Fricasees about them; then the boyl'd-meats amongst the Fricasses, rost-meats amongst the boyl'd, bak'd-meats amongst the rost, and Carbonadoes amongst the bak'd, so that before every trencher may stand a Sallet, a Fricase, a boil'd meat, a rost meat, a bak'd meat, and a Carbonado, which will both give a most comely beauty to the table, and very great contentment to the Guesse. So likewise in the second course, shee shall first preferre the lesser wilde-fowle, as Mallard, Tayle, Snipe, Plover, Wood-cocke, and such like: Then the lesser land-fowle; as Chicken, Pigeons, Partridge, Raile, Turky, Chickens, young Pea-hens, and such like.

Then the greater wild-fowle; as Bitter, Heame, Shoveler, Crane, Bustard, and such like. Then the greater land-fowles; as Peacocks, Pheasant, Puets, Gulls, and such like. Then hot bak'd meats; as Marrowbone-pye, Quince-pye, Florentine and Tarts.

Then cold bak'd-meats, as red Deere, Hare-pye, Gammon of Bacon-pie, wild Bore, Roe-pie, and such like, and these also shall be marshall'd at the Table, as the first course not one kinde all together, but each severall sort mixt together, as a lesser wild-fowle and a lesser land-fowle; a great wild-fowle, and a great land-fowle; a hot bak'd meat and a cold: and for made

dishes

dishes and Quelquechoses, which lie on the invention of the Cooke, they are to be thrust in into every place that is empty, and so sprinkled over all the Table: and this is the best method for the extraordinary great feasts of Princes. But in case it be for much more humble meanes, then lesse care and fewer dishes may discharge it: yet before I proceede to that lower rate, you shall understand, that in these great feasts of Princes, though I have mentioned nothing but flesh, yet is not fish to be exempted; for it is a beauty and an honour unto every feast, and is to be placed amongst all these severall services, as thus; as amongst your Sallets, all sorts of souled-fish that lives in the fresh water; amongst your Fricases, all manner of fried fish; amongst your boyl'd-meats, all fish in broths; amongst your roast-meats, all fish served hot, but dry; amongst the bak'd-meates, all Sea-fish that is soul'd; as Sturgion, and the like; and amongst your Carbonadoes, fish that is broyl'd. As for your second course, to it belongeth all manner of shell-fish, either in the shell, or without; the hot to goe up with the hot meate, and the cold with the cold. And thus shall the feast be royall, and the service worthy.

Now for a more humble feast, or an ordinary proportion which any good man may keepe in his family for the entertainment of his true and worthy friends, it must hold limitation with his provision, and the season of the yeere: for Summer affords what Winter wants, and Winter is master of that which Summer can but with difficulty have: it is good then for him that intends to feast, to set downe the full number of his full dishes, that is, dishes of meat that are of substance, and not empty, or for shew; and of these fifteene is a

good

good proportion for one course unto one messe, as thus for example: First, a shield of Brawne with mustard: Secondly, a boyl'd Capon: Thirdly, a boyl'd piece of Beefe: Fourthly, a chine of Beefe rosted: Fifthly, a Neats-tongue rosted: Sixthly, a Pig rosted: Seventhly, chewets bak'd: Eighthly, a Goose rosted: Ninthly, a Swan rosted: Tenthly, a Turkie rosted: the eleventh, a haunch of Venison rosted: The twelfth, a Pasty of Venison: The thirteenth, a Kid with a pudding in the belly: The fourteenth, an Olive Pie: The fifteenth, a couple of Capons: The sixteenth, a Custard or Dowsets. Now to these full dishes may be added in Sallets, Fricases, Quelquechoses, and devised paste, as many dishes more, which make the full service no lesse then two and thirty dishes, which is as much as can conveniently stand on one Table, and in one messe: and after this manner you may proportion both your second and third course, holding fulnesse in one halfe of the dishes, and shew in the other, which will be both frugall in the splendour, contentment to the guest, and much pleasure and delight to the beholders. And thus much touching the ordering of great Feasts and ordinary contentments.

Chap. 3.

Of Distillations, and their Vertues, and of perfuming.

When our English *House-wife* is exact in these rules before rehearsed, and that she is able to adorne and beautifie her table, with all the vertuous illustration meet for her knowledge; she shall then sort her mind to the understanding of other housewifely secrets, right profitable and meet for her use, such

such as the want thereof may trouble her when need, or time requires.

Of the nature of waters.

Therefore first I would have her furnish her selfe of very good Stils, for the distillation of all kinds of Waters, which stils would either be of Tinne, or sweete Earth, and in them she shall distill all sorts of waters, meete for the health of her Houshold, as Sage-water, which is good for all Rhumes and Chollickes; Radish-water, which is good for the stone, Angelica water good for infection, Celadine-water for sore eyes, Vine-water, for itchings, Rose-water, and Eye-bright-water for dim sights, Rosemary-water for Fistuloes, Treacle-water for mouth cankers, water of Cloves for paine in the stomacke, Saxifrage-water for gravell and hard urin, Allum-water for old Ulcers, and a world of others, any of which will last a full yeere at the least: Then she shall know that the best waters for the smoothing of the skin, and keeping the face delicate and amiable, are those which are distilled from Beane-flowers, from Strawberries, from Vine-leaves, from Goats-milke, from Asses milke, from the whites of Egges, from the flowers of Lillies, from Dragons, from calves feete, from bran, or from yolkes of Egges, any of which will last a yeere or better.

Additions to distillations.

To distill water of the colour of the herbe or flower you desire.

First distill your water in a stillatory, then put it in a glasse of great strength, and fill it with those flowers againe (whose colour you desire) as full as you can, and stop it, and set it in the stillatory againe, and let it distill, and you shall have the colour you distill.

To make Aquavitæ.

Take of Rosemary flowers two handfuls, of Marjorame, Winter-savory, Rosemary, Rew, unset Time, Germander, Rybwort, Harts-tongue, Mouseare, white Wormwood, Bugloss, red Sage, Liver-worte, Hoare-

hound,

hound, fine Lavender, Isop-crops, Penny-royall, Red-fennell, of each of these one handfull: of Elicompane-roots, cleane pared and sliced, two handfuls: Then take all these aforesaid and shred them, but not wash them, then take foure gallons and more of strong Ale, and one gallons of Sack-lees, and put all these aforesayd herbs shred into it, and then put into it one pound of Licoras bruised, halfe a pound of Aniseeds cleane sifted and bruised, and of Mace and Nutmegs bruised of each one ounce: then put together into your stilling-pot close covered with Rye-paste, and make a soft fire under your pot, and as the head of the Limbecke heateth, draw out your hot water and put in cold, keeping the head of your Limbecke still with cold water, but see your fire be not too rash at the first, but let your water come at leasure; and take heed into your stilling that your water change not white: for it is not so strong as the first draught is; and when the water is distilled, take a gallon glasse with a wide mouth, and put therein a pottle of the best water and cleerest, and put into it a pottle of Rosa-solis, halfe a pound of Dates bruised, and one ounce of graines, halfe a pound of Sugar, halfe an ounce of seedpearle beaten, three leaves of fine gold, stirre all these together well, then chop your glasse and set it in the sunne the space of one or two month, and then clarifie it and use it at your discretion: for a spoonfull or two at a time is sufficient, and the vertues are infinite.

Another excellent Aquavitæ. Fill a pot with red wine cleane and strong, and put therein the pouders of Camomile, Gilli-flowers, Ginger, Pellitory, Nutmeg, Gallengall, Spicknard, Quenebits, graines of pure long pepper, blacke Pepper, com-

Cummin, Fennell-seede, Smalledge, Parsley, Sage, Rew, Mint Calamint, and *Horshow*, of each of them a like quantity, and beware they differ not the weight of a dram under or above: then put all the powders above-said into the wine, and after put them into the distilling pot, and distill it with a soft fire, and looke that it be well luted about with *Rye paste*, so that no fume or breath goe forth, and looke that the fire be temperate: also receive the water out of the Limbecke into a glasse-Vyall. This water is called the water of Life, and it may be likened to *Balme*, for it hath all the vertues and properties which *Balme* hath: this water is cleere, and lighter then *Rose water*, for it will fleet above all liquors; for if oyle be put above this water it sinketh to the bottome. This water keepeth flesh and fish both raw and sodden in his owne kind and state, it is good against aches in the bones, the poxe, and such like, neither can any thing kept in this water rot, or putrifie, it doth draw out the sweetnesse, favour, and vertues of all manner of spices, roots and herbes that are wet, or laid therein, it gives sweetnesse to all manner of water that is mixt with it, it is good for all manner of cold sicknesses, and namely for the Palsie, or trembling joynts, and stretching of the sinewes; it is good against the cold goute, and it maketh an old man seeme young, using to drinke it fasting, and lastly, it fretteth away dead flesh in wounds, and killeth the canker.

To make aqua composita.

Take *Rosemary, Time, Issop, Sage, Fennell, Nip*, roots of *Elicompane*, of each an handfull, of *Marlorum* and *Penny-royall*, of each halfe a handfull, eight slips of red *Mint*, halfe a pound of *Licoras*, halfe a pound of *Aniseedes*, and two gallons of the best *Ale* that can be brewed, wash all these herbes cleane, and put into the

hound, fine Lavender, Isop-crops, Penny-royall, Red-fennell, of each of these one handfull: of Elicompane-roots, cleane pared and sliced, two handfuls: Then take all these aforesaid and shred them, but not wash them, then take foure gallons and more of strong Ale, and one gallons of Sack-lees, and put all these aforesayd herbs shred into it, and then put into it one pound of Licoras bruised, halfe a pound of Aniseeds cleane sifted and bruised, and of Mace and Nutmegs bruised of each one ounce: then put together into your stilling-pot close covered with Rye-paste, and make a soft fire under your pot, and as the head of the Limbecke heateth, draw out your hot water and put in cold, keeping the head of your Limbecke still with cold water, but see your fire be not too rash at the first, but let your water come at leasure; and take heed into your stilling that your water change not white: for it is not so strong as the first draught is; and when the water is distilled, take a gallon glasse with a wide mouth, and put therein a pottle of the best water and cleerest, and put into it a pottle of Rosa-solis, halfe a pound of Dates bruised, and one ounce of graines, halfe a pound of Sugar, halfe an ounce of seedpearle beaten, three leaves of fine gold, stirre all these together well, then chop your glasse and set it in the sunne the space of one or two month, and then clarifie it and use it at your discretion: for a spoonfull or two at a time is sufficient, and the vertues are infinite.

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To make aqua composita.

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the *Ale*, *Licoras*, *Aniſeedes*, and herbes into a cleane braſſe-pot, and ſet your Limbecke thereon, and paſte it round about that no ayre come out, then diſtill the water with a gentle fire, and keepe the Limbecke coole above, not ſuffering it to runne too faſt; and take heed when your water changeth colour, to put another glaſſe under, and keepe the firſt water, for it is moſt precious, and the latter water keepe by it ſelfe, and put it into your next pot, and that ſhall make it much better.

☞ A very principall aqua compoſita.

Take of *Balme*, of *Roſemary* Flowers tops and all, of dried red *Roſe leaves*, of *Penny-royall*, of each of theſe a handfull, one root of *Elicompane* the whiteſt that can be got, three quarters of a pound of *Licoras*, two ounces of *Cinamon*, two drams of great *Mace*, two drams of *Gallendgall*, three drams of *Coliander-ſeedes* three drammes of *Carraway-ſeedes*, two or three *Nutmegges* cut in foure quarters, an ounce of *Aniſeedes*, a handfull of *Borage*; you muſt chuce a faire ſunny day, to gather the herbes in; you muſt not waſh them, but cut them in ſunder, and not too ſmall; then lay all your herbes in ſouſe all night and a day, with the ſpices groſſely beaten or bruiſed, and then diſtill it in order aforeſaid, this was made for a learned Phyſitians owne drinking.

To make the Emperiall water.

Take a gallond of *Gaſcoine-wine*, *Ginger*, *Gallendgall* *Nutmegges*, *Graines*, *Cloves*, *Aniſeedes*, *Fennell ſeedes*, *Carraway ſeedes* of each one dramme, then take *Sage*, *Mints*, red *Roſes*, *Time*, *Pellitory*, *Roſemary* *Wilde-time*, *Camomile*, and *Lavender*, of each a handfull, then bray the ſpices ſmall, and the herbs alſo, and put all together into the wine, and let it ſtand ſo twelve houres, ſtirring it divers times, then diſtill it with a Limbecke, and keepe the firſt water, for it is beſt: of a gallond of

wine

wine you must not take above a quart of water; this water comforteth the vitall spirits, and helpeth inward diseases that commeth of cold, as the palsie, the contraction of sinewes, also it killeth wormes, and comforts the stomacke; it cureth the cold dropsie, helpes the stone, the stinking breath, and maketh one seeme young.

To make Cinamon water.

Take a pottle of the best Sack, and halfe a pint of *Rose water*, a quarter and halfe a pound of good *Cinamon* well bruised, but not small beaten; distill all these together in a glasse-still, but you must carefully looke to it, that it boile not over hastily, and attend it with cold wet cloths to coole the top of the still if the water should offer to boyle too hastily. This water is very soveraigne for the stomacke, the head, and all the inward parts; it helps digestion, and comforteth the vitall spirits.

Sixe most precious waters, which *Hippocrates* made, and sent to a Queen sometimes living in *England*.

1 Take *Fennel*, *Rew*, *Vervine*, *Endive*, *Bettony*, *Germander*, *Red-rose*, *Capillus Veneris*, of each an ounce; stampe them, and keepe them in white *Wine* a day and a night; and distill water of them, which water will divide in three parts: the first water you shall put in a glasse by it selfe, for it is more precious then gold, the second as silver, and the third as Balme, and keepe these three parts in glasses: this water you shall give the rich for Gold, to meaner for Silver, to poore men for Balme: This water keepeth the sight in cleareneſſe, and purgeth all grosse humours.

2 Take *Salgemma* a pound, and lap it in a greene docke-leafe, and lay it in the fire till it be well rosted, and waxe white, and put it in a glasse against the ayre a night, and on the morrow it shall be turned to a white water, like unto Chrystall: keepe this water well in a glasse, and put a drop into the eye, and it shall cleanse

and sharp the sight: it is good for any evill at the heart, for the Morphew, and the Canker in the mouth, and for divers other evils in the body.

3 Take the rootes of *Fennell*, *Parsley*, *Endive*, *Buttons*, of each an ounce, and first wash them well in lukewarme water, and bray them well with white wine a day and a night, and then distill them into water: this water is more worthy then *Balme*; it preserveth the sight much, and cleanseth it of all filth, it restraineth teares, and comforteth the head, and avoydeth the water that commeth through the paine of the head.

4 Take the seede of *Parsley*, *Achaunes*, *Vervine*, *Carwaies* and *Centuary*, of each ten drams, beate all these together, and put it in warme water a day and a night, and put it in a vessell to distill: this water is a precious water for all sore eyes, and very good for the health of mans or womans body.

5 Take *Limmell* of *Gold*, *Silver*, *Lattin*, *Copper*, *Iron*, *Steele*, and *Lead*; and take *Lethargie* of *Gold* and *Silver*; take *Calamint*, and *Columbine*, and steepe all together, the first day in the Urin of a man-child, that is betweene a day and a night; the second day in white wine, the third day in the juyce of *Fennell*, the fourth day in the whites of Egs, the fift day in womans milke that nourisheth a man-child, the sixt in red wine, the seventh day in the whites of Egges, and upon the eight day bind all these together, and distill the water of them, and keepe this water in a vessell of *Gold* or *Silver*: the vertues of this water are these: First, it expelleth all rhumes, and doeth away all manner of sickneese from the eyes, and weares away the pearle, pin and web; it draweth againe into his owne kinde the eye-lids that have beene bleared, it easeth the ache of the head, and if a man

drinke it, maketh him looke young even in old age, beſides a world of other moſt excellent vertues.

6 Take the Gold-ſmiths ſtone, and put it into the fire, till it be red hot, and quench it in a pint of white-wine, and doe ſo nine times, and after grind it, and beate it ſmall, and cleanſe it as cleane as you may, and after ſet it in the Sunne, with water of *Fennell* diſtilled, and *Vervine*, *Roſes*, *Celidine* and *Rew*, and a little *Aquavite*, and when you have ſprinkled it in the water nine times, put it then in a veſſell of glaſſe, and yet upon a reverſion of the water diſtill it, till it paſſe over the touch foure or five inches; and when you will uſe it, then ſtirre it all together, and then take up a drop with a feather, and put it on your naile, and if it abide, it is fine and good: then put it in the eye that runneth, or annoint the head with it if it ake, and temples, and beleeve it, that of all waters, this is the moſt precious, and helpeth the ſight, or any paine in the head.

The water of *Chervile* is good for a ſore mouth.

The vertues of ſeverall waters.

The water of *Calamint* is good for the ſtomacke.

The water of *Plantan* is good for the fluxe, and the hot dropſie.

Water of *Fennell* is good to make a fat body ſmall, and alſo for the eyes.

Water of *Violets* is good for a man that is ſore within his body, and for the reines, and for the liver.

Water of *Endive* is good for the dropſie, and for the jaundiſe, and the ſtomacke.

Water of *Borage* is good for the ſtomacke, and for the *Iliaca paſſio*, and many other ſicknes in the body.

Water of both *Sages* is good for the palſie.

Water of *Bettony* is good for old age and all inward ſicknes.

Water of *Radish* drunke twice a day, at each time an ounce, or an ounce and a halfe, doth multiply and provoke lust, and also provoketh the tearmes in women.

Rosemary water (the face washed therein both morning and night) causeth a faire and cleare countenance: also the head washed therewith, and let dry of it selfe, preserveth the falling of the haire, and causeth more to grow; also two ounces of the same drunke, driveth venome out of the body in the same sort as Mithridate doth; the same twice or thrice drunke, at each time halfe an ounce, rectifieth the mother, and it causeth women to be fruitfull: when one maketh a Bath of this decoction, it is called the Bath of life; the same drunke comforteth the heart, the braine, and the whole body, and cleanseth away the spots of the face; it maketh a man looke young, and causeth women to conceive quickely, and hath all the vertues of Balme.

Water of *Rew* drunke in a morning foure or five daies together, at each time an ounce, purifieth the flowers in women: the same water drunke in the morning fasting, is good against the griping of the bowels, and drunke at morning and at night, at each time an ounce, it provoketh the termes in women.

The water of *Sorrell* drunke, is good for all burning and pestilent fevers, and all other hot sicknesses: being mixt with Beere, Ale, or Wine, it slaketh the thirst: it is also good for the yellow Iaundise being taken five or eight daies together: it also expelleth from the liver, if it be drunke, and a cloth wet in the same, and a little wrung out, and so applied to the right side over against the liver, and when it is dry, then wet another, and

apply it; and thus doe three or foure times together.

Lastly, the water of *Angelica* is good for the head, for inward infection, either of the Plague or Pestilence, it is very soveraigne for sore breasts; also the same water being drunke of twelve or thirteene daies together, is good to unload the stomacke of grosse humours and superfluities, and it strengtheneth and comforteth all the universall parts of the body: and lastly, it is a most soveraigne medicine for the gout, by bathing the diseased members much therein.

Now to conclude and knit up this Chapter, it is meet that our House-wife know that from the eighth of the Kalends of the Moneth of *April*, unto the eighth of the Kalends of *July*, all manner of herbes and leaves are in that time most in strength, and of the greatest vertue to be used and put in all manner of medicine, also from the eighth of the Kalends of *July*, unto the eighth of the Kalends of *October*, the stalkes, stems, and hard branches of every herbe and plant is most in strength to be used in medicines; and from the eighth of the Kalends of *October*, unto the eighth of the Kalends of *April*, all manner of roots of herbs and plants are the most of strength and vertue to be used in all manner of medicines.

An excellent Water for perfume.

To make an excellent sweet water for perfume, you shall take of *Basill*, *Mints*, *Marioram*, *Corne-flagge-rootes*, *Issop*, *Savory*, *Sage*, *Balme*, *Lavander*, and *Rosemary*, of each one handfull, of *Cloves*, *Cinamon* and *Nutmegges* of each halfe an ounce, then three or foure *Pomecitrons* cut into slices, infuse all these into *Damaske-rose* water the space of three daies, and then distill it with a gentle fire of char-coale, then when you have put it into a very cleane glasse, take of fat *Muske*, *Civit*,

and *Amber-greece*, of each the quantity of a scruple, and put into a ragge of fine *Lawne*, and then hang it within the water: This being either burn'd upon a hot pan, or else boyled in perfuming pans with *Cloves*, *Bay leaves*, and *Lemmon pils*, will make the most delicatest perfume that may be without any offence, and will last the longest of all other sweet perfumes, as hath been found by experience.

To perfume Gloves.

To perfume *Gloves* excellently, take the oyle of sweet *Almonds*, oyle of *Nutmegges*, oyle of *Beniamin*, of each a dram, of *Amber-greece* one graine, fat *Muske* two graines: mixe them all together, and grinde them upon a painters stone, and then annoint the *Gloves* therewith: yet before you anoint them, let them be dampishly moistned with *Damaske Rose-water*.

To perfume a Ierkin.

To perfume a Ierkin well, take the oyle of *Beniamin* a penny-worth, oyle of *Spike*, and oyle of *Olives*, halfe penny-worths of each, and take two Spunges and warme one of them against the fire and rub your Ierkin therewith, and when the oyle is dried, take the other Spunge and dip it in the oyle, and rub your Ierkin therewith till it be dry, then lay on the perfume before prescribed for Gloves.

☞ To make washing Balls.

To make very good washing Balls, take Storax of both kindes, Beniamin, Calamus Aromaticus, Labdanum of each a like; and bray them to powder with Cloves and Arras; then beate them all with a sufficient quantity of Sope till it be stiffe, then with your hand you shall worke it like paste, and make round balls thereof.

To make a Muske Ball.

To make Muske-balls, take Nutmegs, Mace, Cloves, Saffron and Cinamon, of each the waight of two-pence, and beat it to fine powder, of Mastick the waight

of

of two-pence halfe-peny, of *Storax* the weight of six-pence; of *Labdanum* the weight of ten-pence; of *Amber-greece* the weight of six-pence; and of *Muske* foure graines, dissolve and worke all these in hard sweete *Sope* till it come to a stiffe paste, and then make balls thereof.

To make a good perfume to burn, take of *Benjamin* one ounce, *Storax*, *Calamint* two ounces, of *Mastick*, white *Amber-greece*, of each one ounce, *Ireos*, *Calamus Aromaticus*, *Cypresse-wood*, of each halfe an ounce, of *Camphire* one scruple, *Labdanum* one ounce: beate all these to powder, then take of *Sallow Charcole* sixe ounces, of liquid *Storax* two ounces, beate them all with *Aquavitæ*, and then you shall roule them into long round roules. A perfume to burne.

To make Pomanders, take two penni-worth of Labdanum, two penny-worth of Storax liquid, one penny-worth of Calamus Aromaticus, as much Balme, halfe a quarter of a pound of fine waxe, of Cloves and Mace two penny-worth, of liquid Aloes three penny-worth, of Nutmegs eight penny-worth, and of Muske foure graines; beate all these exceedingly together till they come to a perfect substance, then mold it in any fashion you please and dry it. To make Pomanders.

To make excellent strong Vinegar, you shall brew the strongest Ale that may be, and having tunned it in a very strong vessell, you shall set it either in your garden or some other safe place abroad, where it may have the whole Summers day Sun to shine upon it, and there let it lie till it be extreme sower, then into a Hogshead of this Vinegar put the leaves of foure or five hundred Damaske Roses, and after they have laid for the space of a Moneth therein, house the Vinegar To make Vinegar.

the Vinegar, and draw it as you neede it.

To make dry vinegar.

To make dry Vinegar which you may carry in your pocket, you shall take the blades of greene corne, either Wheat or Rie, and beat it in a Mortar with the strongest Vinegar you can get, till it come to paste; then roule it into little balls, and dry it in the Sunne till it be very hard, then when you have any occasion to use it, cut a little piece thereof and dissolve it into Wine, and it will make strong Vinegar.

To make Verjuyce.

To make Verjuyce, you shall gather your Crabs as soone as the kernels turne blacke, and having laid them a while in a heape to sweat together, take them and picke them from stalkes, blackes and rottennesse: then in long troughs with beetles for the purpose, crush and breake them all to mash: then make a bagge of course haire-cloth as square as the presse, and fill it with the crush'd crabs, then put it into the presse, and presse it whil- any moisture will drop forth, having a cleane vessell underneath to receive the liquor: this done, tun it up into sweet Hogsheads, and to every Hogshead put halfe a dozen handfuls of Damaske Rose-leaves, and then bung it up, and spend it as you shall have occasion.

☞ Additions, to conceited secrets.

Many other pretty secrets there are belonging unto curious *House-wives*, but none more necessary then these already rehearsed, except such as shall hereafter follow in their proper places.

To make sweet powder for bagges.

Take of *Arras* sixe ounces, of *Damaske Rose leaves* as much, of *Mariorum* and sweet *Basill*, of each an ounce, of *Cloves* two ounces, yellow *Saunders* two ounces, of *Citron pills* seven drammes, of *Lignum Aloes* one ounce, of *Beniamin* one ounce, of *Storax* one ounce, of *Muske* one dramme: bruise all these, and put them into a

bagge

bagge of silke or linnen, but silke is the best.

To make sweet bagges.

Take of *Arras* foure ounces, of *Gallamus* one ounce, of *Ciris* halfe an ounce, of *Rose-leaves* dried two handfuls, of dried *marioram* one handfull, of *Spike* one handfull, *Cloves* one ounce, of *Benjamin* and *Storax*, of each two ounces, of white *Saunders* and yellow of each one ounce: beate all these into a grosse powder, then put to it *Muske* a dram, of *Civit* halfe a dram, and of *Ambergreece* halfe a dram; then put them into a *Taffata* bag and use it.

How to make sweet-water.

Take of *Bay leaves* one handfull, of red *Roses* two handfuls of *Damaske Roses* three handfuls, of *Lavender* foure handfuls, of *Basill* one handfull, of *Marioram* two handfuls, of *Camomile* one handfull, the young tops of sweet *Bryer* two handfuls, of *Asandelion tansey* two handfuls, of *Orenge pils* six or seven ounces, of *Cloves* and *Mace* a groats-worth: put all these together in a pot of new *Ale* in cornes for the space of three daies, shaking it every day three or foure times, then distill it the fourth day in a still with a continuall soft fire, and after it is distilled, put into it a graine or two of *Muske*.

A very tart and pleasant Damake-water.

Take a quart of *Malmsey-leer*, or a quart of *Malmsey* simply, one handfull of *Marioram*, or *Basill* as much, of *Lavender* foure handfuls, *Bay-leaves* one good handfull, *Damaske Rose-leaves* foure handfuls, and as many of red, the pils of six *Orenges*, or for want of them, one handfull of the tender leaves of *Walnut-trees*, of *Benjamin* halfe an ounce, of *Calamus Aromaticus* as much, of *Camphire* foure drammes, of *Cloves* one ounce, of *Baldamum* halfe an ounce; then take a pottle of running water, and put in all these spices bruised into your water and *Malmsey* together in a close

close stopped pot, with a good handfull of *Rosemary*, and let them stand for the space of sixe daies: then distill it with a soft fire: then set it in the Sunne sixteen daies with foure graines of *Muske* bruised. This quantity will make three quarts of water, *Probatum est.*

To make the best Vinegar.

Take and brew very strong *Ale*, then take halfe a dozen gallons of the first running, and set it abroad to coole, and when it is cold, put *Yest* unto it, and head it very strongly; then put it up in a ferkin, and distill it in the Sunne: then take foure or five handfuls of *Beanes*, and parch them in a pan till they burst: then put them in as hot as you can into the Ferkin, and stop it with a little clay about the bung-hole: then take a handfull of cleane *Rye-leaves* and put in the Ferkin; then take a quantity of *Barberies*, and bruise and straine them into the Ferkin, and a good handfull of *Salt*, and let them lie and worke in the Sunne from *May* till *August*; then having the full strength, take *Rose-leaves* and clip the white ends off, and let them dry in the Sunne; then take *Elder-flowers* and picke them, and dry them in the Sunne, and when they are dry, put them in bagges, and keepe them all the Winter: then take a pottle-pot, and draw forth a pottle out of the Ferkin into the bottle, and put a handfull of red *Rose leaves*, and another of the *Elder flowers*, and put into the bottle, and hang it in the Sunne, where you may occupy the same, and when it is empty, take out all the *leaves*, and fill it againe as you did before.

To perfume Gloves.

Take *Angelica-water* and *Rose-water*, and put into them the powder of *Cloves*, *Amber-greece*, *Muske*, and *Ligum Aloes*, *Beniamin* and *Calamus Aromaticus*: boyle these till halfe be consumed: then straine it, and put your *Gloves* therein; and then hang them in the Sunne to dry,

dry, and turne them often: and thus three times wet them, and dry them againe: Or otherwise, take *Rose-water*, and wet your *Gloves* therein, then hang them up till they be almost dry; then take halfe an ounce of *Benjamin*, and grind it with oyle of *Almonds*, and rub it on the *Gloves* till it be almost dried in: then take twenty graines of *Amber-greece*, and twenty graines of *Muske*, and grind them together with oyle of *Almonds*, and so rub it on the *Gloves*, and then hang them up to dry, or let them dry in your bosome, and so after use them at your pleasure.

Chap. 4.

The ordering, preserving, and helping of all sorts of Wines, and first of the choyce of sweet Wines.

I Doe not assume to my selfe this knowledge of the *Vintners* secrets, but ingeniously confesse that one profest skilfull in the Trade, having rudely written, and more rudely disclosed this secret, and preferring it to the Stationer, it came to me to be polished, which I have done, knowing that it is necessary, &c.

It is necessary that our *English House-wife* be skilfull in the election, preserving and curing of all sorts of Wines, because they be usuall charges under her hands, and by the least neglect must turn the *Husband* to much losse: therefore to speake first of the election of sweete Wines, shee must be carefull that her *Malmseys* be full Wines, pleasant, well hewed and fine: that *Bastard* be fat, and if it be tawny it skils not, for the tawny *Bastards* be alwaies the sweeteſt. *Muskadine* must be great pleasant, and strong, with a sweet sent, and with Amber-colour. *Sacke* if it be *Seres* (as it should be)

you

you ſhall know it by the marke of a corke burned on one ſide of the bung, and they be ever full gaged, and ſo are no other Sackes, and the longer they lye, the better they be.

To make Muſkadine, and give it a flaver.

Take a pleaſant But of *Malmſey*, and draw it out a quarter and more; then fill it up with fat Baſtard within eight gallons, or there abouts, and parell it with ſixe Egges, yolkes and all, one handfull of *Bay-ſalt*, and a pint of *Conduit-water* to every parell, and if the Wine be high of colour, put in three gallons of new *Milke*, but skimme off the Creame firſt, and beate it well, or otherwiſe, if you have a good But of *Malmſey*, and a good pipe of *Baſtard*, you muſt take ſome empty But or pipe; and draw thirty gallons of *Malmſey*, and as many of *Baſtard*; and beate them well together: and when you have ſo done, take a quarter of a pound of Ginger and bruiſe it, and put it into your veſſell; then fill it up with *Malmſey* and *Baſtard*: Or otherwiſe thus, if you have a pleaſant But of *Malmſey*, which is called *Ralt-mow*, you may draw out of it forty gallons, and if your *Baſtard* be very faint, then thirty gallons of it will ſerve to make it pleaſant: then take foure gallons of new *Milke* and beate it, and put it into it when it lacketh twelve gallons of full, and then make your flaver.

☞ How to flaver Muskadine.

Take one ounce of *Coliaunders*, of *Bay-ſalt*, of *Cloves*, of each as much, one handfull of *Savory*: let all theſe be blended and bruiſed together, and ſow them cloſe in a bagge, and take halfe a pint of *Damaſke-water*, and lay your flaver into it, and then put it into your but, and if it fine, give it a parell and fill it up, and let it lie till it be fine: or elſe thus, Take *Coliander* roots a peny-worth, one pound of *Aniſeeds*, one peny-worth of

Ginger

Ginger: bruise them together, and put them into a bagge as before, and make your bagge long and small, that it goe in and out at the bung-hole, and when you doe put it in, fasten it with a thread at the bung: then take a pint of the strongest *Damaske-water*, and warme it lukewarme, then put it into the But, and then stop it close for two or three daies at least, and then, if you please, you may set it abroach.

To apparell Muskadine when it comes new to be fined in twenty foure houres.

Take seven whites of new laid Egges, two handfulls of *Bay-salt*, and beate them well together, and put therein a pint of Sacke or more, and beate them till they be as short as snow; then over-draw the But seven or eight gallons, and beate the Wine, and stirre the Lees, and then put in the parell and beate it, and so fill it up, and stop it close, and draw it on the morrow.

To make white Bastard.

Draw out of a Pipe of Bastard ten Gallons, and put to it five gallons of new milke, and skim it as before, and all to beate it with a paire of eight whites of Egges, and a handfull of *Bay-salt*, and a pint of conduit-water, and it will be white and fine in the morning. But if you will make very fine Bastard, take a white-wine Hogs-head, and put out the Lees, and wash it cleane, and fill it halfe full and halfe a quarter, and put to it foure gallons of new milke, and beate it well with the whites of sixe Egges, and fill it up with white-wine and Sacke, and it will be white and fine.

How to helpe Bastard being eager.

Take two gallons of the best stoned hony, and two gallons of white-wine, and boyle them in a faire pan, skimme it cleane, and streine it thorow a faire cloth that there be no moates in it: then put to it one ounce of *Colianders*, and one ounce of *Aniseeds*, foure or five *Orenge-pills* dry and beaten to powder, let them lye three daies: then draw your Bastard into a cleane pipe,

then

then put in your honey with the reſt, and beate it well: then let it lye a weeke and touch it not, after draw it at your pleaſure.

To make Baſtard white, and to rid away Lagges,

If your Baſtard be fat and good, draw out forty gallons, then may you fill it up with the lagges of any kind of white-Wines or Sacks; then take five gallons of new Milke, and firſt take away the creame, then ſtreine it thorow a cleane cloth, and when your pipe is three quarters full, put in your Milke; then beate it very well, and fill it ſo, that it may lacke fifteene gallons, then aparell it thus: take the whites onely of ten Egges, and beat them in a faire tray with *Bay-ſalt* and *Conduit-water*; then put it into the pipe and beate it well, and ſo fill it up, and let it ſtand open all night: and if you will keepe it any while, you muſt on the morrow ſtop it cloſe, and to make the ſame drinke like *Oſſey*, give it this flavor: Take a pound of *Aniſeeds*, two pence in *Colianders*, two pence in *Ginger*, two pence in *Cloves*, two pence in *Graines*, two pence in long *Pepper*, and two pence in *Licoras*; bruiſe all theſe together: then make two bagges of linnen-cloth, long and ſmall, and put your ſpices into them, and put them into the pipe at the bung, making them faſt there with a thread, that it may ſinke into the Wine, then ſtop it cloſe, and in two daies you may broach it.

A remedy for Baſtard if it pricke.

Take and draw him from his Lees, if he have any, and put the Wine into a *Malmſey* But to the Lees of *Malmſey*; then put to the *Baſtard* that is in the *Malmſey* But, nigh three gallons of the beſt *Woort* of a freſh tap, and then fill him up with *Baſtard* or *Malmſey*, or *Cute*, if you will; then aparell it thus: Firſt, parell him, and beate him with a ſtaffe, and then take the whites of foure new laid Egges, and beate them with a handfull of

ſalt

Salt till it be as short as *Mosse*, and then put a pint of running water therein, and so fill the Pipe up full, and lay a little stone on the bung, and set it abroach within foure and twenty houres if you will.

To make Malmsey.

If you have a good But of *Malmsey*, and a But or two of *Sacke* that will not be drunke: for the *Sacke* prepare some empty But or Pipe, and draw it more than halfe full of *Sacke*, then fill it up with *Malmsey*, and when your But is full within a little, put into it three gallons of Spanish *Cute*, the best that you can get, then beat it well, then take your taster, and see that it be deep coloured; then fill it up with *Sacke*, and give it aparell, and beate it well; the aparell is this: Take the yolkes of ten Egges, and beate them in a cleane Bason with a handfull of *Bay salt*, and a quart of *Conduit-water*, and beate them together with a little piece of *Birch*, and beate it till it be as short as *Mosse*, then draw five or sixe gallons out of your But, then beate it againe, and then fill it up, and the next day it will be ready to be drawne. This aparell will serve both for *Muskadine*, *Bastard*, *and for Sacke*.

To shift Malmsey, and to rid away ill wines.

If you have two principall Buts of *Malmsey*, you may make three good Buts with your lagges of *Claret* and of *Sacke*, if you put two gallons of red Wine in a But, it will save the more *Cute*: then put two or three gallons of *Cute*, as you see cause; and if it be Spanish *Cute*, two gallons will goe further then five gallons of Candy *Cute*, but the Candy *Cute* is more naturall for the *Malmsey*: also one But of good *Malmsey*, and a But of *Sacke* that hath lost his colour, will make two good Buts of *Malmsey*, with the more *Cute*; and when you have fill'd your Buts within twelve gallons, then put in your *Cute*, and beate it halfe an houre.

houre and more: then put in your parell and let it lye.

If Sacke want his colour.

First, parell him as you did the Bastard, and order him as shall be shewed you for the white-wine of Rossicoigne with milke, and so set him abroach.

For Sacke that is tawny.

If your Sacke have a strong lee or taste, take a good sweet But, faire washed, and draw your Sack into it, and make unto it a parell as you doe to the Bastard, and beate it very well, and so stop up your But: and if it be tawny, take three gallons of new milke and streine it cleane, and put it into your Sacke, then beat it very well, and stop it close.

For Sacke that doth rape and is browne.

Take a faire empty But with the Lees in it, and draw your Sacke into the same from his Lees fine: then take a pound of Rice flower, as fine as you can get, and foure graines of Camphire, and put it into the Sacke: and if it will not fine, give it a good parell, and beate it well: then stop it and let it lie.

To colour Sacke, or any white wine.

If any of your Sackes of white Wines have lost their colour, take three Gallons of new milke, and take away the Creame: then over-draw your wine five or six gallons, then put in your milke and beate it, then lay it a fore-tarke all night, and in the morning lay it up, and the next day if you will you may set it abroach.

If Alligant be growne hard.

Draw him out into fresh Lee, and take three or foure gallons of stone Hony clarified, and being cold, put it in and parell it with the yolkes of foure Eggs, whites and all, and beat it well, and fill it up, and stop it close, and it will be pleasant and quicke as long as it is in drawing.

For Alligant that is sower.

Take three gallons of white Hony, and two gallons of red Wine, boyle them together in a faire pan, and skimme it cleane, and let it stand till it be fine and cold, then put it into your Pipe: yet nothing but the finest;

then

then beate it well, and fill it up, and ſtop it cloſe, and if your Allegant be pleaſant and great, it will doe much good, for the one Pipe will rid away divers.

How to order Rheniſh wine.

There are two ſorts of *Rheniſh wines*, that is to ſay, *Elſtertune* and *Barabant*: the *Elſtertune* is beſt, you ſh l know it by the Fat, for it is double barr'd and double pinn'd; the *Barabant* is nothing ſo good, and there is not ſo much good to be done with it as with the other. If the wines be good and pleaſant, a man may rid away a Hogſhead or two of white Wine, and this is the moſt vantage a man can have by them: and if it be ſlender and hard, then take three or foure gallons of ſtone-honey and clarifie it cleane; then put into the honey foure or five gallons of the ſame wine, and then let it ſeethe a great while, and put into it two pence in Cloves bruiſed, let them ſeethe together, for it will take away the ſent of honey, and when it is ſodden, take it off, and ſet it by till it be thorow cold, then take foure gallons of Milke and order it as before, and then put all into your wine and all to beate it; and (if you can) roule it, for that is the beſt way; then ſtop it cloſe, and let it lie, and that will make it pleaſant.

Of what countries Wines are by their names.

The Wines that be made in *Burdeaux* are called *Gaſcoigne* Wines, and you ſhall know them by their hazell hoopes, and the moſt be full gage and ſound Wines.

The wines of the high countries, and which are called high-countrey wine, are made ſome thirty or forty miles beyond *Burdeaux*, and they come not downe ſo ſoone as the other; for if they doe they are all forfeited, and you ſhall know them ever by their hazell hoopes, and the length gage lackes.

Then have you wines that be called *Galloway* both in Pipes and Hogſheads, and be long, and lackes

two Sesternes in gage and a halfe, and the Wines themselve are high coloured. Then there are other Wines which are called white Wine of *Anguile*, very good Wine, and lackes little of gage, and this is also in Pipes for the most part, and is quarter-bound. Then there are *Rochell* Wines, which are also in Pipes long and slender: they are very small hedge-wines, sharpe in taste, and of a pallid complexion; Your best Sackes are of *Seres* in *Spaine*, your smaller of *Galacia* and *Portugall*: your strong Sackes are of the Islands of the *Canaries*, and of *Malligo*; and your Muskadine and Malmseys are of many parts of *Italy*, *Greece*, and some speciall Islands.

Notes of gaging of Wines, Oyles and Liquors.

Every Terse is in depth the middle of the knot in the midst.

The depth of every Hogshead is the fourth pricke above the knot.

The depth of every Puncheon is the fourth pricke next to the Punchener.

The depth of every Sacke-but is the foure prickes next to the Puncheon.

The depth of the whole Hogshead is at the lowest notch, and accounted one.

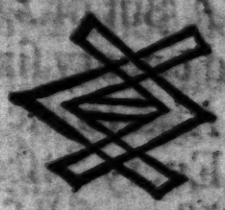
The depth of the halfe Terse is at the second notch, and is accounted two.

The depth of the halfe Hogshead and halfe pipe, is at the third notch, and accounted three.

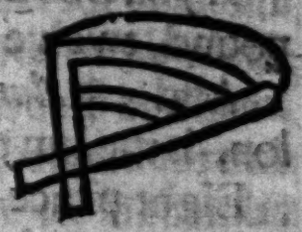
The depth of the halfe But is at the fourth notch, and is accounted foure.

The markes of Gaging.

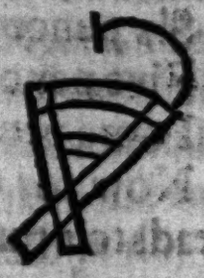
1. The full Gage is marked thus.



2. The halfe Sesterne lacketh, thus



3. The whole Sesterne lacketh, thus



4. The Sesterne and halfe lag.

5. The two Sesternes, thus.

6. The two and a halfe Sesternes, thus.

The contents of all manner of Gascoigne wines, and others.

A But of *Malmsey* if he be full gage, is one hundred and twenty sixe gallons.

And so the tun is two hundred and fifty two gallons.

Every Sesterne is three gallons.

If you sell for twelve pence a gallon, the tun is twelve pound, twelve shillings.

And *Malmsey* and *Renish* wine at ten pence the gallon, is the tun ten pound.

Eight pence the gallon, is the tun eight pounds.

Six pence the gallon, is the tun sixe ponnds.

Five pence the gallon, is the tun five pounds.

Foure pence the gallon, is the tun foure pounds.

Now for *Gascoigne* wine, there goeth foure Hogsheads to a tun, and every hogshead is sixty three gallons, the two hogsheads are one hundred twenty six gallons, and foure hogsheads are two hundred fifty two gallons; and if you sell for eight pence the gallon, you shall make of the tun eight pounds, and so forth looke how may pence the gallons are, and so many pounds the tun is.

Now for *Bastard* it is at the same rate, but it lacketh of gage two Sesternes and a halfe, or three in a Pipe, and then you must abate sixe gallons of the price, and so in all other wines.

To choose Gascoigne wines.

See that in your choice of *Gascoigne* wines you observe that your Clarret wines be faire coloured, and bright as a Ruby, not deepe as an Amethyst; for though it may shew strength, yet it wants neatnesse: also let it be sweeet as a Rose or a Violet, and in any case let it be short; for if it be long, then in nowise meddle with it.

For your white wines, see they be sweete and pleasant at the nose, very short, cleere and bright, and quicke in the taste.

Lastly,

Lastly, for your red Wines, provide that they be deep coloured and pleasant, long and sweete, and if in them, or Claret Wines be any default of colour, there are remedies enough to amend and repaire them.

To remedy Clarret wine that hath lost his colour.

If your Clarret Wine be faint, and have lost his colour; then take a fresh hogshead with his fresh lees which was very good wine, and draw your wine into the same, then stop it close and tight, and lay it aforetake for two or three daies that the lees may run thorow it, then lay it up till it be fine, and if the colour be not perfect, draw it into a red wine hogshead, that is new drawne with the lees, and that will colour of himselfe, and make him strong; or take a pound of Tournsell or two, and beate it with a gallon or two of wine, and let it lie a day or two, then put it into your hogshead, draw your wine againe, and wash your clothes, then lay it aforetake all night, and roule it on the morrow; then lay it up, and it will have a perfect colour.

A remedy for Gascoigne wine that hath lost his colour.

And if your Clarret wine have lost his colour, take a penyworth of Damsens, or else blacke Bullasses, as you see cause, and stew them with some red wine of the deepest colour, and make thereof a pound or more of sirrup, and put it into a cleane glasse, and after into the hogshead of Clarret wine; and the same you may likewise doe unto red wine if you please.

A remedy for white wine, that hath lost his colour.

And if your white wine be faint, and have lost his colour, if the wine have any strength in it, take a hogshead so much as you intend to put in, out of the said Milke, and a handfull of Rice beaten very well, and a little Salt, and lay them aforetake all night, and on the morning lay them up againe, and set it abroach in any wise the next wine you spend, for it will not last long.

Take three gallons of new Milke, and take away the

For white wine that hath lost his colour.

Creame off it; then draw five or six gallons of Wine, and put your Milke into the Hogshead, and beat it exceeding well, then fill it up, but before you fill it up, if you can, roule it, and if it be long and small, take halfe a pound of Roach Allum finely beaten into powder, and put it into the vessell, and let it lie.

A remedy for Clarret, or white wine that drinks foule.

Take and draw it into new lees of its own nature, and then take a dozen of new Pippins, and pare them, and take away the cores, and then put them in, and if that will not serve, take a handfull of the Oake of Ierusalem, and stampe it, then put it into your wine, and beat it exceeding well, and it will not onely take away the foulenesse, but also make it have a good scent at the nose.

For red wine that drinks faint.

If your red wine drinke faint, then take a Hogshead that Allegant hath beene in with the lees also, and draw your wine into it, and that will refresh it well, and make the wine well-coloured; or otherwise draw it close to fresh lees, and that will recover it againe, and put to it 3. or 4. gallons of Allegant, and turne it on his lees.

For red Wine that wanteth colour.

If your red Wine lacke colour, then take out foure gallons, and put in foure gallons of Allegant, and turne him on his lees, and the bung up, and his colour will returne and be faire.

To make tyre.

Take a good But of Malmsey, and over draw it a quarter or more, and fill him up with fat Bastard, and with Cute a gallon and more, then parell him as you did your Malmsey.

If Malmsey complete, or Caprock have lost their colour.

You shall in all points dresse him, as you did dresse your Sacke, or white Wine in the like case, and parell him, and then set him abroach: And thus much touching Wines of all sorts, and the true use and ordering of them, so farre forth as belongeth to the knowledge and profit of our *English House wife*.

Cap.

CHAP. 5.

of Woll, Hemp, Flax and Cloth, and Dying of colours, of each severall substance, with the knowledges belonging thereto.

THat *English Houſe-wife* after her knowledge of preſerving, and feeding her family, muſt learne alſo how out of her owne endeavours, ſhe ought to cloth them outwardly and inwardly for defence from the cold and comelineſſe to the perſon; and inwardly, for cleanlineſſe and neatneſſe of the skinne, whereby it may be kept from the filth of ſweat, or vermine; the firſt conſiſting of woollen cloth, the latter of linnen.

To ſpeake then firſt of the making of woollen cloth, it is the office of the Husband-man at the ſheering of his ſheepe, to beſtow upon the Houſe-wife ſuch a competent proportion of wooll, as ſhall be convenient for the clothing of his family; which wooll as ſoone as ſhe hath received it, ſhe ſhall open, and with a paire of ſheers (the fleece lying, as it were, whole before her) ſhee ſhall cut away all the courſe locks, pitch, brands, carr'd locks, and other felcrings, and lay them by themſelves for courſe Coverlids, or the like: then the reſt, ſo cleanſed, ſhe ſhall breake into pieces, and toſe it every locke by locke, that is, with her hands open, and ſo divide the wooll, as not any part thereof may be felted or cloſe together, but all open and looſe; then ſo much of the wooll as ſhee intends to ſpinne white, ſhee ſhall put by it ſelfe, and the reſt which ſhe intends to put into colours ſhee ſhall waigh up, and divide into ſeverall quantities, accor-

Of making wollen cloth.

Of toſing wooll.

ding to the proportion of the web which she intends to make, and put every one of them into particular bagges made of netting, with tallies or little pieces of wood fixed on them, with privie markes thereon, both for the weight, the colour, and the knowledge of the same wooll when the first colour is altred: this done, she shall, if she please, send them unto the Diers, to be died after her owne fancy; yet for as much as I would not have our *English Housewife* ignorant in any thing meete for her knowledge, I will shew her here before I proceed any further, how she shall die her wooll her selfe into any colour meete for her use.

The dying of Wooll.

To dye Wooll blacke.

First then to die wooll blacke, you shall take two pound of Gals, and bruise them, then take halfe so much of the best greene Coperas, and boile them both together in two gallons of running water: then shall you put your wooll therein and boile it, so done, take it forth and dry it.

To dye Wooll of haire colour.

If you will die your wooll of a bright haire colour, first boile your wooll in Allum and water; then take it forth, and when it is cold, take chamber-lye and chimney-foote, and mixing them together well, boile your wooll againe therein, and stirre it exceeding well about, then take it forth, and lay it where it may conveniently dry.

To dye Wooll red.

If you would die your wooll into a perfect red colour, set on a pan full of water, when it is hot, put in a peeke of Wheat-bran, and let it boile a little, then put it into a tub, and put twice as much cold water unto it, and let it stand untill it be a weeke old: having done so, then shall you put to ten pounds of wooll, a pound of Allum, then beate your liquor againe, and put in your Allum, and so soone as it is melted, put in your wooll,

and let it boile the space of an houre: Then take it againe, and then set on more braine and water: Then take a pound of Madder, and put in your Madder when the liquor is hot: when the Madder is broken, put in the woollen and open it, and when it commeth to be very hot, then stirre it with a stafe, and then take it out and wash it with faire water, and let on the paine againe with faire water, and then take a pound of Saradine bucke, and put in therein, and let it boile the space of an Egge seething; then put in the woolle, and stirre it three or foure times about, and open it well, after dry it.

To dye Woolle blew.

To die Woolle blew, take good store of old chamberlye, and set it on the fire, then take halfe a pound of blew Neale, Byse or Indico, and beat it small in a Morter, and then put it into the Lye, and when it seethes, put in your woolle.

To dye a Puke.

To die Woolle of a Puke colour, take Galls, and beate them very small in a Morter, put them into faire seething water, and boile your woolle or your Cloth therein, and boile them the space of halfe an houre: then take them up, and put in your Coperas into the same liquor: then put in your woolle againe, and doing this once or twice, it will be sufficient.

To dye a Cinder colour.

And if you will die your woolle of a Cinder colour, which is a very good colour, you shall put your red woolle into your puke liquor; and then it will faile lesse but of a Cinder colour.

To dye greene or yellow.

If you will die your woolle either greene or yellow, then boyle your Woodward in faire water, then put in your woolle or cloth, and the woolle which you put in white, will be yellow, and that woolle

which

which you put in blew will be greene, and all this with one liquor: provided that each be first boiled in Allum.

Handling of woolll after dying.

When you have thus died your woolll in those severall colours meete for your purpose, and have also driedit well; then you shall take it forth, and toile it over againe as you did before: for the first toiling was to make it receive the colour or die: this second is to receive the oile, and make it fit for spinning; which assoone as you have done, you shall mixe your colours together, wherein you are to note, that the best mixing, is that which is compounded of two colours onely, as a light colour, and a darke: for to have more is but confusion, and breeds no pleasure but distraction to the sight: therefore for the proportion of your mixtures, you shall ever take two parts of the darker colour, and but a third part of the light. As for example, your Web contains twelve pound, and the colours are red and greene: you shall then take eight pound of the greene woolll, and but foure pound of the red, and so of any other colour where there is difference in bignesse.

The mixing of colours.

Mixing of three colours.

But if it be so that you will needs have your cloth of three colours, as of two darke and one light, or two light and one darke: As thus, you will have Crimson, Yellow, and Puke; you shall take of the Crimson and Yellow, of each two pound, and of the Puke eight pound for this is two light colours to one darke; but if you will take a Puke, a greene and orenge-tawny which is two darke and one light; then you shall take of the puke and green, and the orenge-tawny of each a like quantity: that is to say, of either foure pounds, when you have equally divided your portions, then you shall spread upon the ground a sheete, and upon the same first lay a thin

thin layre or bed of your darker colour, all of one even thickneſſe: then upon the ſame layre, lay another much thinner of the brighter quantity, being ſo neere as you gueſſe it, hardly halfe ſo much as the darker: then cover it over with another layer of the firſt colour or colours againe, then upon it another of the bright againe: And thus lay layer upon layre till all your wooll be ſpread: then beginning at one end to roule up round and hard together the whole bed of wooll, and then cauſing one to kneel hard upon the roule, that is may not ſtirre nor open, with your hands roſe, and pull out all the wooll in ſmall pieces: And then taking a paire of Stocke-cards ſharpe and large, and bound faſt to a forme, or ſuch like thing, and on the ſame Combe, and Card over all the wooll, till you ſee it perfectly and undiſtinctly mixed together, and that indeed it is become one entire colour of divers without ſpots, or undevided lockes or knots, in which doing you ſhall be very carefull, and heedfull with your eye: and if you finde any hard knot, or other felter in the wooll, which will not open, though it be never ſo ſmall, yet you ſhall picke it out and open it, or elſe being any other fault caſt it away: for it is the greateſt art in *Houſe-wifery* to mixe theſe woolls aright, and to make the cloth without blemiſh.

Your wooll being thus mixed perfectly together, you ſhall then oile it, or as the plaine *Houſe-wife* termes it, greaſe it: In this maner being laid in a round flat bed, you ſhall take of the beſt Rape oile, or for want thereof either well rayd red Gooſe greaſe, or Swines greaſe, and having melted it with your hand, ſprinkle it all over your wooll, and worke it very well into the ſame: then turne your wooll about, and doe as much on the other ſide,

Of the oyling of Woolls.

side, till you have oyled all the woell over, and that there is not a locke which is not moystened with the same.

The quantity of oyle.

Now for as much as if you shall put too much oyle upon the woell, you may thereby doe great hurt to the web, and make it that the thread will not draw, but fall into many pieces; you shall therefore be sure at the first to give it little enough, and taking some thereof, prove it upon the wheele: And if you find it draws dry, and breaketh, then you may put more oile unto it; but if it draw well, then to keepe it there without any alteration: but because you shall be a little more certaine in the truth of your proportions, you shall know, that three pound of grease or oile, will sufficiently anoint or grease ten pounds of woell: and so according to that proportion, you may oile what quantity you will.

Of the tumming of woell.

After your woell is oil'd and annointed thus, you shall then tumme it, which is, you shall pull it forth as you did before, when you mixt it, and card it over againe upon your Stock-cards: and then those cardings which you strike off, are called tummings, which you shall lay by, till it come to spinning. There be some *Housewives* which oile it as they mix it, and sprinkle every layer as they lay it, and worke the oile well into it: and then rouling up as before said, put it out, and tumme it; so that then it goeth once over the Stock-cards which is not amisse: yet the other is more certaine, though somewhat painfull.

Of spinning Woell.

After your woell is thus mixed, oiled and tummed you shall then spinne it upon great woell-wheeles, according to the order of good *Housewifery*: the action whereof must be got by practice, and not relation; only this you shall be carefull, to draw your thread accor-

ding

ding to nature and goodneſſe of your wooll, not according to your particular deſire: for if you draw a fine thread from wooll which is of a courſe ſtaple, it will want ſubſtance when it comes to the Walke Mill, and either there beate in pieces, or not being able to bed, and cover the threads well, be a cloth of a very ſhort laſting. So likewiſe if you draw a courſe thread from a wooll of a fine ſtaple, it will then ſo much over thicke, that you muſt either take away a great part of the ſubſtance of your wooll in flocks; or elſe let the cloth weare courſe, and high, to the diſgrace of the good Houſe-wifery, and loſſe of much cloth, which elſe might have beene ſaved.

Now for the diverſities of ſpinning, although our ordinarie *Engliſh Houſe-wives* make none at all, but ſpin every thread alike, yet the better experienc'd make two manner of ſpinnings, and two ſorts of thread; the one they call warpe, the othe weft, or elſe wooffe; the warpe is ſpunne cloſe, round and hard twiſted, being ſtrong and well ſmoothed, becauſe it runnes thorow the ſleies, and alſo indureth the fretting and beating of the beame, the weft is ſpunne open, looſe, hollow, and but halfe twiſted; neither ſmoothed with the hand, nor made of any great ſtrength, becauſe it but onely croſſeth the warpe, without any violent ſtraining, and by reaſon of the ſoftneſſe thereof beddeth cloſer, and covereth the warpe ſo well, that a very little beating in the Mill bringeth it to perfect cloth: and though ſome hold it leſſe ſubſtantiall than the web, which is all of twiſted yarne, yet experience findes, they are deceived, and that this open weft keepes cloth longer from fretting and wearing. The diverſity in ſpinning.

After the ſpinning of youre wooll, ſome *Houſe-wives* uſe

use to winde it from the broch into round clewes for more ease in the warping, but it is a labour may very well be saved, and you may as well warpe it from the broch as from the clew, as long as you know the certaine weight, for by that onely you are to be directed in all manner of cloth making.

Winding of woollen yarne.

Of warping Cloth.

Now as touching the warping of cloth, which is both the skill and action of the Weaver, yet must not our *English House-wife*, be ignorant therein, but though the doing of the thing be not proper unto her, yet what is done must not be beyond her knowledge, both to bridle the falshood of unconscionable worke-men, and for her owne satisfaction, when shee is rid of the doubt of anothers, evill doing. It is necessary then that shee first cast by the weight of her wooll, to know how many yards of cloth the web will arise: for if the wooll be of a reasonable good staple, and well spunne, it will runne yard and pound, but if it be course, it will not runne so much.

Now in your warping also, you must looke how many pounds you lay in your warpe, and so many you must necessarily preserve for your weft: for Housewives say, the best cloth is made of even and even; for to drive it to greater advantage is hurtfull to the cloth: there be other observations in the warping of cloth; as to number your portusses, and how many goes to a yard: to looke to the closeneese, and filling of the sleie, and such like, which sometimes hold, and sometimes faile, according to the art of the worke-man; and therefore I will not stand much upon them; but referre the House-wife to the instruction of her owne experience.

Now after your cloth is thus warped, and delivered up

up into the hands of the Weaver; the Houſe-wife hath finiſh'd her labour: for in the weaving, walking, and dreſſing thereof ſhee can challenge no property more, than to entreat them ſeverally to diſcharge their duties with a good conſcience; that is to ſay, that the Weaver weave cloſe, ſtrong, and true; that the Walker or Fuller, mill it carefully, and looke well to the ſcowring-earth, for feare of beating holes into the cloth; and that the Cloth-worker, or Sheere-man burle, and dreſſe it ſufficiently, neither cutting the wooll too unreaſonable high, whereby the cloth may weare rough, nor too low, leſt it appeare thread-bare ere it come out of the hands of the Tailer. Theſe things forewarn'd and performed, the cloth is then to be uſed at your pleaſure.

Of weaving cloth, walking and dreſſing it.

The next thing to this, which our *Engliſh Houſe-wife* muſt be skilfull in, is in the making of all ſorts of linnen-cloth, whether it be of Hempe or Flaxe, for from thoſe two onely, this is the moſt principall cloth derived, and made both in this, and in other Nations.

Of Linnen cloth.

And firſt touching the ſoile fitteſt to ſow Hempe upon, it muſt be a rich mingled earth of clay and ſand, or clay and gravell well tempered: and of theſe the beſt ſerveth beſt for the purpoſe, for the ſimple clay, or the ſimple ſand are nothing ſo good; for the firſt is too tough, too rich, and too heavie, bringeth forth all Bunne, and no rinde, the other is too barren, too hot, and too light, and bringeth forth ſuch ſlender withered increaſe, that it is nothing neere worth the labour: briefly then the beſt earth is the beſt mixt ground, which Husband-men call the red hazell ground, being well ordered and manured: and of this earth a principall place to ſow Hempe on, is in old ſtackeyards, or other

The ground beſt to ſow Hempe on.

places

places kept in the winter time for the laire of sheepe or cattle; when your ground is either scarse, or formerly not imployed to that purpose: but if it be where the ground is plenty, and onely used thereunto, as in *Holland*, in *Lincoln-shire*, the Isle of *Axham*, and such like places, then the custome of the Country will make you except enough therein: there be some that will preserve the ends of their corne-lands, which butt upon grasse for to sow Hempe or Flaxe thereon, and for that purpose will manure it well with sheep: for whereas corne which butteth on grasse hads, where cattle are teathered is commonly destroyed, and no profit issuing from a good part thereof; by this meanes, that which is sowne will be more safe and plentifull, and that which was destroyed, will beare a commodity of better value.

The tillage of the ground.

Now for the tillage or ordering of the ground where you sow Hempe or Flaxe, it would in all points be like unto that where you sow Barley, or at the least as often broke up, as you doe when you sow fallow wheat, which is thrice at least, except it be some very few mellow, and ripe mould, as stacke-yards, and usuall Hemp-lands be, and then twice breaking up is sufficient: that is to say, about the latter end of *February*, and the latter end of *April*, at which time you shall sow it: and herein is to be noted, that you must sow it reasonable thick with good sound and perfect seed, of which the smoothest, roundest, and brightest with least dust in it is best: you must not lay it too deepe in the earth, but you must cover it close, light, and with so fine a mould as you can possible breake with your Harrowes, clotting-beetles, or sleighting: then till you see it appeare above the earth, you must have it exceeding carefully tended, especially an houre

Of sowing of hemp or flax.

houre or two before the Sunne rise, and as much before it set, from birds and other vermine, which will otherwise picke the seed out of the earth, and so deceive you of your profit.

Of weeding of Hempe and flaxe.

Now for the weeding of hemp, you may save the labour, because it is naturally of it selfe swift of growth, rough, and venomous to any thing that growes under it and will sooner of its owne accord destroy those unwholesome weedes then by your labour: But for your Flaxe or line which is a great deale more tender, and of harder increase, you shall as occasion serveth weede it, and trimme it, especially if the weedes overgrow it, but not otherwise: for if it once get above the weedes, then it will save it selfe.

The pulling of hempe or flax.

Touching the pulling of Hempe or Flaxe, which is the manner of gathering of the same: you shall understand that it must be pulled vp by the rootes, and not cut as Corne is, either with sithe or hooke: and the best time for the pulling of the same is, when you see the leaues fall downeward, or turne yellow at the tops, for that is full ripe, and this for the most part will bee in *July*, and about *Mary Mandlins* day. I speake now touching the pulling of hempe for cloth: but if you intend to saue any for seed, then you shal saue the principal bunnes, and let them stand till it bee the latter end of *August*, or sometimes till mid *September* following: and then seeing the seede turned broune and hard, you may gather it, for if it stand longer, it will shed suddenly: as for flaxe, which ripeneth a little after the hemp, you shall pull it as soone as you see the seed turne browne, and bend the head to the earthward, for it will afterward ripen of it selfe as the bunne drieth.

Now for the ripening, and seasoning of Hempe or

The ripening of hempe and flaxe,

Flax, you shall so soone as you have pulled it, lay it all along flat, and thinne upon the ground, for a night and a day at the most, and no more; and then as *Housewives* call it, tye it up in baites, and reare them upright till you can conveniently carry it to the water, which would be done as speedily as may bee. Now there bee some which ripen their Hempe and Flaxe upon the ground where it grew, by letting it lye thereon to receive dewes and raine, and the moystneſſe of the earth, till it be ripe: but this is a vile and naughty way of ripening, it making the hempe or flaxe blacke, rough, and often rotten: therefore I would wish none to use it, but such as necessity compelleth thereunto, and then to bee carefull to the often turning thereof, for it is the ground onely which rots it.

The watering of hempe or flaxe.

Now for the watering of the Hempe or Flax, the best water is the running streame, and the worst the standing pit, yet because Hempe is a poysonous thing, and infecteth the water, and destroyeth all kinde of fish, it is more fit to imploy such pits and ditches as are least subject to annoyance, except you live neere some great broad and swift streame, and then in the shallow part thereof, you may water without danger: touching the manner of the watering thereof, you shall according to the quantity, knock foure or five strong stakes into the bottome of the water, and set them square-wise, then lay your round baits or bundles of Hempe downe under the water, the thicke end of one bundle one way, and the thicke ends of another bundle another way; and so lay baite upon baite, till you have laid in all, and that the water covereth them all over; then you shall take over-lyers of wood, and binding them overthwart to the stakes, keepe the Hempe downe close, and especially

cially, at the foure corners; then take great stones, gravell, and other heavy rubbish, and lay it betweene, and over the over-lyers, and so cover the Hempe close, that it may by no meanes stirre, and so let it continue in the water foure daies and nights, if it be in a running water, but if it be in a standing water, then longer, and then take out one of the uppermost baites and wash it; and if in the washing you see the leafe come off, then you may bee assured the Hempe is watered enough: as for Flaxe, lesse time will serve it, and it will shead the leafe in three nights.

The time it shall lie in the water.

When your Hempe or Flax is thus watered enough, you shall take off the gravel, stones, over-lyers of wood, and unlooſing it from the stakes, take and wash out every baite or bundle severall by it selfe, and rub it exceeding cleane, leaving not a leafe upon it, nor any filth within it; then set it upon the dry earth upright, that the water may drop from it, which done, load it up, and carry it home, and in some open Close, or piece of ground reare it upright either against hedges, pales, wals, back-sides of houses, or such like, where it may have the full strength or reflection of the Sunne, and being through dryed, then house it; yet there be some *Housewives*, which assoone as their Hemp comes from the water, will not reare it upright, but lay it upon the ground flat and thinne, for the space of a fennight, turning it at the end of every two daies, first on the one side, then on the other, and then after reare it upright, dry it, and so house it, and this *House-wifery* is good and orderly.

Of washing out of Hempe or Flax.

Now although I have hitherto ioyned Hempe and Flaxe together, yet you shall understand that there are some particular differences between them, for whereas your Hempe may within a night or two after the pul-

Speciall ordering of Flax.

ling be carried to the water, your flaxe may not, but must be reared vp, and dried and withered a weeke or more to ripen the seede, which done, you must take ripple combs, and ripple your flaxe ouer, which is the bearing, or breaking off from the stalkes the round belles or bobs, which containe the seede, which you must preserue in some dry vessell or place till the spring of the yeare, and then beate it, or thresh it for your vse, and when your flax or line is ripled, then you must send it to the water as aforesayd.

The braking for hempe flax

After your hempe or flaxe hath beene watered dryed and housed, you may then at your pleasure break it, which is in a brake of wood (whose proportion is so ordinary, that euery one almost knowes them) breake and beate out the dry bunne, or kexe of the Hempe or flaxe from the rinde which couers it, and when you brake either, you shall doe it, as neere as you can, on a faire dry Sun shine day, obseruing to set forth your hempe and flaxe, and spread it thinne before the Sunne, that it may be as dry as tinder before it come to the brake; for if either in the lying close together it shall giue againe or sweate, or through the moystnesse of the ayre, or place where it lies receiues any dampishnesse, you must necessarily see it dried sufficiently againe; or else it will neuer brake well, nor the bunne breake and fall from the rinde in order as it should: therfore if the weather bee not seasonable, and your need much to vse your hempe or flaxe, you shall then spread it vpon your kilne, and making a soft fire vnder it, dry it vpon the same, and then brake it: yet for as much as this is oft times dangerous, and much hurt hath beene receiued thereby through carelesse of fire, I would wish you to sticke fount [illegible]

The drying of Hempe or Flaxe.

in the earth at leaſt five foote aboue ground, and laying ouer them ſmall ouer layers of wood, and open ſleakes or hurdles vpon the ſame; ſpreade your Hempe, and alſo reare ſome round about it all, but at one open ſide; then with ſtraw, ſmall ſhauings, or other light dry wood make a ſoft fire vnder the ſame, and ſo dry it, and brake it, and this without all danger or miſtruſt of euill; and as you brake it, you ſhall open and looke into it, euer beginning to brake the roote ends firſt; and when you ſee the bun is ſufficiently cruſht, fallen away, or at the moſt hangeth but in very ſmall ſhiuers within the hempe or Flaxe, then you ſhall ſay it is brak't enough, and then terming that which you called a baite or bundle before, now a ſtrike, you ſhall lay them together and ſo houſe them, keeping in your memorie either by ſcore or writing, how many ſtrikes of hempe, and how many ſtrikes of Flaxe you brake vp euery day.

When it is brak't enough.

Now that your hempe or Flaxe may brake ſo much the better, you muſt haue for each ſeuerall ſort two ſeuerall brakes, which is an open and wide toothed, or nickt brake, and a cloſe and ſtraight toothed brake: the firſt being to cruſh the bun, and the latter to beate it forth. Now for Flaxe, you muſt take firſt that which is the ſtraighteſt for the hempe, and then after one of purpoſe, much ſtraighter and ſharper for the bunne of it being more ſmall tough and thinne, muſt neceſſarily be broken into much leſſe peeces.

Diuerſity of brakes.

After your hempe and Flaxe is brak't, you ſhall then ſwingle it, which is vpon a ſwingle tree blocke made of an halfe inch boord about foure foote aboue ground, and ſet vpon a ſtrong foote or ſtocke, that will not eaſily moue and ſtir, as you may ſee in any *Houſe-wiues* houſe

Of ſwingling hempe and flaxe.

house whatsoever better then my words can expresse: and with a peece of wood called the swingle tree dagger, and made in the shape and proportion of an old dagger with a reasonable blunt edge; you shall beate out all the loose buns and shivers that hang in the hemp or flaxe, opening and turning it from one end to the other, till you have no bunne or shiver to be perceived therein, and then strike a twist, and fould in the midst, which is ever the thickest part of the strike, lay them by till you have swingled all; the generall profit whereof, is not onely the beating out of the hard bunne, but also an opening, and softning of the teare, whereby it is prepared and made ready for the Market.

Vse of swingled, first hurds.

Now after you have swingled your Hempe and Flax over once, you shall take and shake up the refuse stuffe which you beate from the same severally, and not onely it, but the tops and knots, and halfe brackt buns which fall from the brake also, and drying them againe cause them to be very well thresht with flayles, and then mixing them with the refuse which fell from the swingle tree, dresse them all well with threshing and shaking, till the bunnes be cleane driven out of them; and then lay them in some safe dry place till occasion of use: these are called swingle tree hurds, and that which comes from the hempe will make window-cloth, and such like course stuffe, and that which comes from the flax, being a little towed againe in a paire of wooll-cards, wil make a course harding.

The second swingling.

But to proceed forward in the making of cloth, after your hempe or flaxe hath beene swingled once over, which is sufficient for the market, or for ordinary sale, you shall then for cloath swingle it over the second time, and as the first did beate away the bun, and soften the

the rind, ſo this ſhall breake and divide, and prepare it fit for the heckle; and hurds which are this ſecond time beaten off, you ſhall alſo ſave: for that of the hempe (being toaſed in wooll cards) will make a good hempen harden) and that commeth from the flaxe (uſed in that manner) a flaxe harden better then the former.

of Beating hempe.

After the ſecond ſwingling of your Hempe, and that the hurds thereof have beene layd by, you ſhall take the ſtrikes, and dividing them into dozens, or halfe dozens, make them up into great thicke roles, and then as it were broaching them, or ſpitting them upon long ſticks ſet them in the corner of ſome chimney, where they may receive the heate of the fire, and there let them abide, till they be dryed exceedingly, then take them, and laying them in a round trough made for the purpoſe, ſo many as may conveniently lye therein, and there with beetles beate them exceedingly, till they handle both without and within as ſoft and plyant as may be, without any hardneſſe or roughneſſe to be felt or perceived; then take them from the trough, and open the roler, and divide the ſtrikes ſeverally as at the firſt, and if any be inſufficiently beaten, role them up, and beat them over as before.

of heckling hempe.

When your Hempe hath beene twice ſwingled, dried, and beaten, you ſhall then bring it to the heckle, which inſtrument needeth no demonſtration, becauſe it is hardly unknowne to any woman whatſoever: and the firſt heckle ſhall be courſe, open and wide toothed, becauſe it is the firſt breaker or divider of the ſame, and the layer of the ſtrikes even and ſtraight: and the hurds which come of this heckling you ſhall mixe with thoſe of the latter ſwingling, and it will make the cloth much better; then you ſhall heckle it the ſecond time through

a good straight heckle made purposely for hempe, and be sure to break it very well and sufficiently thereupon, and save both the hurds by themselves, and the strikes by themselves in severall places.

Now there bee some very principall good *Housewives*, which use onely but to heckle their hempe once over, affirming, that if it be sufficiently dried and beaten, that once going over through a straight heckle will serve without more losse of labour, having beene twice swingled before.

Dressing of Hempe more fine.

Now if you intend to have an excellent peece of Hempen cloth, which shall equall a peece of very pure Linnen, then after you have beaten it, as beforesaid, and heckled it once over, you shall then roule it up againe, dry it as before, and beate it againe as much as at the first; then heckle it through a fine flaxen heckle, and the towe which falles from the heckle, will make a principall hemping, but the teare it selfe a cloth as pure, as fine *Houſe-wifes* Linnen, the indurance and lasting whereof, is rare and wonderfull: thus you see the uttermost art in dressing of hempe for each severall purpose in cloth making till it come to the spinning.

of heckling Flaxe.

Flaxe after it hath been twice swingled needeth neither more drying nor beating as hempe doth, but may be brought to the heckle in the same manner as you did hempe; onely the heckle must be much finer and straiter, and as you did before, the first heckle being much courser than the latter, holding the strike stiffe in your hand, breake it very well upon that heckle: then the hurdes which comes thereof, you shall save to make fine hurden cloth of, and the strike it selfe you shall passe through a finer heckle; and the hurds which come from thence, you shall save to make fine midlen

cloth

cloth of, and the teare it ſelfe for the beſt linnen.

To dreſſe Flaxe for the fineſt vſe that may be, as to make faire Holland cloth of greate price, or thread for the moſt curious purpoſe, a ſecret hitherto almoſt concealed from the beſt *Houſe-wifes* with us; you ſhall take your Flaxe after it hath been handled, as is before ſhewed, and laying three ſtrikes together, plat them in a plat of three ſo hard and cloſe together as it is poſſible, joyning one to the end of another, till you have platted ſo much as you thinke convenient, and then begin another plat, and thus platte as many ſeverall plats as you thinke will make a roule, like unto one of your Hempe roules before ſpoke of, and then wreathing them hard together, make up the roule; and ſo many roules more or leſſe, according to the purpoſe you dreſſe them for: this done, put the roules into a hempe-trough, and beat them ſoundly, rather more than leſſe than the hempe: and then open & unplat it, and divide every ſtrike from other very carefully; then heckle it through a finer heckle than any formerly uſed: for of heckles there be ever three ſorts, and this muſt be the fineſt: and in this heckling you muſt be exceeding carefull to doe it gently, lightly, and with good deliberation, leaſt what you heckle from it ſhould runne to knots, or other hardnes, as it is apt to doe: but being done artificially as it ought, you ſhall ſee it looke, and feele it handle like fine ſoft cotton, or Ierſie wooll; and this which thus looketh and feeleth, and falleth from the heckle, will notwithſtanding make a pure linnen, and run at leaſt two yards and a halfe in the pound; but the teare it ſelf will make a perfect ſtrong, and moſt fine holland, running at leaſt fiue yards in the pound.

The dreſſing of flaxe to the fineſt uſe.

After your teare is thus dreſt, you ſhall ſpinne it either upon

upon wheele or rock, but the wheele is the swifter way, and the rocke maketh the finer thread; you shall draw your thread according to the nature of the teare, and as long as it is even, it cannot be too small, but if it be uneven, it will never make a durable cloth. Now for as much as every House-wife is not able to spin her owne teare in her owne house, you shall make choyce of the best Spinners you can heare of, and to them put forth your teare to spinne, weighing it before it goe, and weighing it after it is spun and dry, allowing weight for weight, or an ounce and a halfe for waste at the most: as for the prises for spinning, they are according to the natures of the country, the fineneſſe of the teare, and the deareneſſe of provisions: some spinning by the pound, some by the lay, and some by day, as the bargain shall be made.

of the spinning of hempe.

After your yarne is spunne upon spindles, spooles, or such like; you shall then reele it upon reeles, of which the reeles which are hardly two foot in length, and have but onely two contrary crosse barres are the best, the most easie and least to be troubled with ravelling, and in the weaving of your fine yarne to keep it the better from ravelling, you shall as you reele it, with a Ley-band of a bigge twist, divide the slipping or skeane into divers Leyes, allowing to every Ley 80. threds, and 20 Laies to every slipping, the yarne being very fine, otherwise lesse of both kinds: but if you spin by the Ley as at a pound a Ley or so, then the ancient custome hath beene to allow to the reele which was 8. yards all above 160. threads to every Ley, and 25 Leyes, and sometimes 30 Leyes to a slipping, which will ordinarily amount to a pound or thereabouts; and so by that you may proportion forth the price for any manner of spin-

of reeling of yarne.

ning

ning whatsoever: for if the best thus, then the second so much bated; and so accordingly the worst.

After thus your yarne is spunne and reeld, being in the slipping, you shall scowre it: Therefore first to fetch out the spots, you shall lay it in lukewarme water, and let it lie so three or foure dayes, each day shifting it once, and wringing it out, and laying it in another water of the same nature; then carry it to a well or brooke; and there rinse it, till you see that nothing commeth from it, but pure cleane water; for whilst there is any filth within it, there will never be white cloth; which done take a bucking tub, and cover the bottome thereof with very fine Ashen-ashes: then opening your slippings, and spreading them, lay them on those ashes; then cover those slippings with ashes againe, then lay in more slippings, and cover them with ashes as before, and thus lay one upon another, till all your yarne be laid in; then cover the uppermost yarne with a bucking cloth, and lay therein a pecke or two (according to the bigneſſe of the tub) of ashes more: then powre into all through the uppermost cloth so much warme water, till the tub can receive no more; and so let it stand all night: the next morning, you shall set a kettle of cleane water on the fire; and when it is warme, you shall pull out the spigget of the bucking tubbe, and let the water therein runne into another cleane vessell, and as the bucking tubbe wasteth, so you shall fill it up againe with the warme water on the fire, and as the water on the fire wasteth, so you shall fill it up againe with the lie which commeth from the bucking tubbe, ever observing to make the lie hotter and hotter till it seeth; and then when it so seetheth, you shall as before apply it with boyling lie, at least foure houres together; which is called

Of the scowring of yarne.

Bucking yarne.

led, the driving of a bucke of yarne: All which being done you shall take off the Buckling cloth, and then putting the yarne with the lie ashes into large tubbes or boales, with your hands as hot as you can suffer it to posse, and labour the yarne, ashes, and lie a prety while together; then carry it to a well, river, or other cleane scouring water, and there rinse it as cleane as may bee from the ashes, then take it, and hang it up upon poales abroad in the ayre all day, and at night take the slippings downe, and lay them in water all night, then the next day hang them up againe, and if any part of them drie, then cast water vpon them, obseruing euer to turne that side outmost which whiteth slowest, and thus doe at least seuen daies together, then put all the yarne againe into a bucking tubbe without ashes: and couer it as before with a bucking cloth, and lay thereupon good store of fresh ashes, and drive that buck as you did before, with very strong seething lies, the space of halfe a day or more, then take it forth, posse it, rinse it, and hang it vp as you did before on the daies, and laying it in water on the nights another weeke, and then wash it ouer in faire water, and so dry it vp: other waies there are of scouring and whiting of yarne; as steeping it in branne and warme water, and then boyling it with *Ozier* sticks, wheate straw, water and ashes, and then possing, rinsing, and bleaching it vpon hedges, or bushes; but it is a foule and vncertaine way, and I would not wish any good *Housewife* to vse it.

Whitening of yarne.

After your yarne is scoured and whited, you shall then winde it vp into round balles of a reasonable bignesse, rather without bottomes then with any at all, because it may deceiue you in the waight, for according

Of winding yarne.

ding to the pounds will arise your yards and lengths of cloth.

After your yarne is wound and weighed, you shall carry it to the Weavers, and warpe it as was before shewed for woollen cloth, knowing this, that if your Weaver bee honest and skilfull, hee will make you good and perfect cloth of even and even, that is iust the same weight in weft that then was in warpe; as for the action of weaving it selfe, it is the worke-mans occupation, and therefore to him I referre it. Of warping and weaving.

After your cloth is woven, and the web or webs come home, you shall first lay it to steepe in all points as you did your yarne, to fetch out the soyling and other filth which is gathered from the Weaver; then rinse it also as you did your yarne; then bucke it also in lie and ashes as before said, and rinse it, and then having loopes fixt to the selvedge of the cloth spread it upon the grasse, and stake it down at the uttermost length and breadth, and as fast as it dries water it againe, but take heed you wet it not too much, for feare you mildew or rot it, neither cast water upon it till you see it in a manner drie, and be sure weekely to turne it first on one side and then on the other, and at the end of the first weeke you shall bucke it as before in Lie and Ashes: againe then rinse it, spread it, and water it as before; then if you see it whites apace, you neede not to give it any more buckes with the ashes and the cloth mixt together: but then a couple of cleane bucks (as was before shewed in the yarne) the next fortnight following; and then being whitened enough, dry up the cloth, and use it as occasion shall require; the best season for the same whitening being in *April* and *May*. Now the course and worst house-wifes scoure and white their cloath with water and The scouring and whiting of Cloth.

and bran, and buck it with lie and greene hemlocke: but as before I said, it is not good, neither would I have it put in practice. And thus much for Wooll, Hemp, Flax, and Cloth of each severall substance.

Chap. 6.

Of Dairies, Butter, Cheese, and the necessary things belonging to that Office.

THere followeth now in this place after these knowledges already rehearsed, the ordering and government of Dairies, with the profit and commodities belonging to the same. And first touching the stocke wherewith to furnish Dairies, it is to bee understood, that they must be Kine of the best choice and breed that our *English Housewife* can possibly attaine unto, as of big bone, faire shape, right lined, and deepe of milke, gentle, and kindely.

Of Kine.

Touching the bignesse of bone, the larger that every Cow is, the better she is: for when either age, or mischance shall disable her for the paile, being of large bone, shee may bee fed, and made fit for the shambles, and so no losse, but profit, and any other to the paile as good and sufficient as her selfe.

Bignesse of Kine.

For her shape, it must a little differ from the Butchers rules; for being chose for the Dairy, shee must have all the signes of plenty of milke; as a crumpled horne, a thinne necke, a hairy dewlap, and a very large udder, with foure teats, long, thicke, and sharpe at the ends, for the most part either all white, of what colour soever the Cow be; or at least the fore part thereof, and if it be well haird before and behind, and smooth in the bottome, it is a good signe also.

Shape of Kine.

As touching the right breed of Kine through our nation, it generally affordeth very good ones, yet some countries doe farre exceed other countries; as *Chefe-shire*, *Lancashire*, *Yorke shire*, and *Darbie shire*, for blacke Kine; *Glocester shire*, *Somerset-shire*, and some part of *Wilt shire* for red Kine, and *Lincolne shire* pide Kine: and from the breeds of these Countries generally doe proceede the breeds of all other, howsoever dispersed over the whole Kingdome. Now for our *Houſe-wifes* direction, she shall choose her Dairy from any of the best breeds before named, according as her opinion and delight shall goveth her, onely observing not to mixe her breeds of diverse kinds, but to have all of one intire choice without variation, because it is unprofitable; neither must you by any meanes have your Bull a forreiner from your Kine, but either of one country, or of one shape and colour: Itagaine in the choice of your kine, you must looke diligently to the goodnesse and fertility of the soile wherein you live, and by all meanes buy no Kine from a place that is more fruitfull then your owne, but rather harder; for the latter will prosper and come on, the other will decay and fall into disease; as the pissing of blood and such like, for which disease & all other you may find assured cures in the former booke, called *The perfect husband*.

The breed of Kine.

Of the going dry of Kine.

For the depth of milke in Kine (which is the giving of most milke) being the maine of a *Houſe wife* profit, shee shall bee very carefull to have that quality in her beasts. Now those Kine are said to bee deepest of milke, which are new bare, that is, which have but lately calved, and have their milke deepe springing in their vdders, for at that time she giveth the most milke; and if the quantity then bee not conveniente, doubtlesse the Cow cannot be said to be of deepe milke: and for the

Depth of milke in Kine.

Of the quantity of Kine.

quantity

Quantity of Milke.

quantity of milke, for a Cow to give two gallons at a meale, is rare, and extraordinary; to give a gallon and a halfe is much, and convenient, and to give but a gallon certaine it not to be found fault with: againe those Kine are said to bee deepe of milke, which though they give not so exceeding much milke as others, yet they give a reasonable quantity, and give it long as all the yeere through, whereas other Kine that give more in quantity, will goe dry, being with calfe some three moneths, some two, and some one, but these will give their usuall measure, even the night before they calve; and therefore are said to be Kine deepe of milke. Now for the retained opinion, that the Cow which goeth not dry at all, or very little, bringeth not forth so good a Calfe as the other, because it wanteth much of the nourishment it should enioy, it is vaine and frivolous; for should the substance from whence the milke proceedeth convert to the other intended nourishment, it would bee so superabundant, that it would convert either to disease or putrefaction: but leaving these secret reasons passe, there bee some kine which are so exceedingly full of milke, that they must bee milkt at least thrice a day, at morning, noone, and evening, or else they will shed their milke, but it is a fault rather then a vertue, and proceedeth more from a laxativeneſſe or looseneſſe of milke, then from any abundance; for I never saw those three meales yet equall the two meales of a good Cow, and therefore they are not truly called deepe of milke.

Of the going dry of Kine.

Of the gentleneſſe of Kine.

Touching the gentleneſſe of Kine, it is a vertue as to be expected as any other; for if she be not affable to the maide, gentle and willing to come to the paile, and patient to have her dugs drawne without skittishneſſe, striking or wildneſſe, she is utterly unfit for the dayry.

A a

As a Cow muſt be gentle to her milker, ſo ſhe muſt be kind in her own nature; that is, apt to conceive, & bring forth, fruitfull to nouriſh, and loving to that which ſprings from her; for ſo ſhe bringeth forth a double profit; the one for the time preſent which is in the Dairy; the other for the time to come; which is in the maintenance of the ſtocke, and upholding of breed. Of kindlineſſe in Kine.

The beſt time for a Cow to calve in for the dairy, is in the latter end of *March*, and all *Aprill*; for then graſſe beginning to ſpring to its perfect goodneſſe, will occaſion the greateſt increaſe of milke that may be: and one good early Cow will countervaile two latter, yet the Calves thus calved are not to be reared, but ſuffered to feed upon their Dams beſt milke, and then to be ſold to the Butchers, and ſurely the profit will equall the charge; but thoſe Calves which fall in *October*, *November*, or any time of the depth of winter may well be reared up for breed, becauſe the maine profit of the Dairy is then ſpent, and ſuch breed will hold up any Calves which are calved in the prime daies, for they generally are ſubject to the diſeaſe of the Sturdy, which is dangerous and mortall. The beſt time to calve in, for the dairy or breed.

The *Houſe wife* which onely hath reſpect to her Dairy, and for whoſe knowledge this diſcourſe is written (for we have ſhewed the *Grazier* his office in the *Engliſh Husband-man*) muſt reare her Calves upon the finger with flotten milke, and not ſuffer them to run with the dammes, the generall manner whereof, and the cure of all the diſeaſes incident to them, and all other Cattell is fully declared in the booke called *Cheape and good*. Roaring of Calves.

To proceed then to the generall uſe of Dairies, it conſiſteth firſt in the cattell (of which we have ſpoken ſufficiently) then in the houres of milking, the ordering The generall uſe of Dairies.

of the milke, and the profits arising from the same.

The howers of milking.

The best and most commended howres for milking, are indeed but two in the day, that in the spring and summer time which is the best season for the dairy, is betwixt five and sixe in the morning, and sixe and seven a clocke in the evening: and although nice and curious *Houſe wives* will have a third houre betwixt them, as betweene twelve and one in the after-noone, yet the better experienſt doe not allow it, and ſay as I beleeve, that two good meales of milke are better ever than three bad ones; alſo in the milking of a Cow, the woman muſt ſit on the neere ſide of the Cow, ſhee muſt

Manner of milking.

gently at the firſt handle and ſtretch her dugges, and moyſten them with milke that they may yeeld out the milke the better, and with leſſe paine: ſhe ſhall not ſettle her ſelfe to milke, nor fixe her paile firme to the ground till ſhe ſee the Cow ſtand ſure and firme, but be ready upon any motion of the Cow to ſave her paile from overturning, when ſhe ſeeth all things anſwerable to her deſire, ſhe ſhal then milk the Cow boldly, & not leave ſtretching and ſtraining of her teats, till not one drop of milke more will come from them for the worſt point of *Houſe wifery* that can be, is to leave a Cow halfe mixt, for beſides the loſſe of the milke, it is the onely way to make a Cow dry and utterly unprofitable for the Dairy: the milke-maid whilſt ſhe is in milking ſhall doe nothing raſhly or ſuddenly about the Cow, which may affright or amaze her, but as ſhe came gently, ſo with all gentleneſſe ſhe ſhall depart.

The ordering of Milke.

Touching the well ordering of milke after it is come home to the Dairy, the maine point belongeth thereunto is the *Houſe wives* cleanlineſſe in the ſweet & neate keeping of the Dairy houſe, where not the leaſt moate

of

of any filth may by any meanes, appeare, but all things either to the eye or nose so void of sowernesse or sluttishnesse, that a Princes bed-chamber must not exceede it: to this must be added the sweet and delicate keeping of her milk-vessells, whether they be of wood, earth, or lead, the best of which is yet disputable with the best *House-wifes*; onely this opinion is generally received, that the wooden-vessell which is round and shallow is best in cold vaults, the earthen vessels principall for long keeping, and the leaden vessell for yeelding of much Creame: but howsoever, any, and all these must be carefully scalded once a day, and set in the open aire to sweeten, lest getting any taint of sowernesse into them, they corrupt the milke that shall be put therein. Ordering of milke-vessels.

But to proceede to my purpose, after your milke is come home, you shall, as it were, straine it from all uncleane things, thorow a neate and sweete kept Syle-dish, the forme whereof every *House-wife* knowes, and the bottome of the Syle, thorow which the milke must passe, shall be covered with a very cleane wash'd fine linnen cloth, such an one as will not suffer the least moate or haire to goe thorow it; you shall into every vessell, syle a pretty quantity of milke, according to the proportion of the vessell, the broader it is, and the shallower it is, the better it is, and yeeldeth ever the most creame; and keepeth the milke longest from sowring. Syling of Milke.

Now for the profits arising from milk, they are three of especiall account, as Butter, Cheese, and Milke, to be eaten either simple or compounded: as for Curds, sower Milke or Whigge, they come from secondary meanes, and therefore may not be numbred with these. Profits arising from milke.

For your Butter, which onely proceedeth from the Of Butter.

Creame, which is the very heart and ſtreng.h of Milke, it muſt be gathered very carefully, diligently, and painfully. And though cleanlineſſe be ſuch an ornament to a *Houſe-wife*, that if ſhe want any part thereof, ſhe loſeth both that and all good names elſe: yet in this action it muſt be more ſeriouſly imployed than in any other.

Of fleeting Creame.

To beginne then with the fleeting or gathering of your Creame from the Milke, you ſhall doe it in this manner: the Milk which you doe milk in the morning, you ſhall with a fine thinne ſhallow diſh made for the purpoſe, take off the Creame about five of the clock in the evening; and the Milke which you did milke in the evening, you ſhall fleet, and take off the Creame about five of the clocke the next morning; and the Creame ſo taken off, you ſhall put into a cleane ſweete and well leaded earthen pot cloſe covered, and ſet in a coole place: And this creame ſo gathered, you ſhall not keepe above two daies in the Summer, and not above foure in Winter, if you will have the ſweeteſt and beſt Butter; and that your Dairy containe five Kine or more; but how many or few ſoever you keep, you ſhall not by any meanes preſerve your Creame above three daies in Summer, and not above ſixe in the Winter.

Of keeping Creame.

Of churming Butter, and the daies.

Your Creame being neately and ſweet kept, you ſhall churme or churne it on thoſe uſuall daies which are fitteſt either for your uſe in the houſe, or the markets adjoyning neere unto you, according to the purpoſe for which you keepe your Dairy. Now the daies moſt accuſtomable held amongſt ordinary *Houſe-wives*, are Tueſday and Friday: Tueſday in the afternoone, to ſerve Wedneſday morning market, and Friday morning to ſerve Saturday-market; for Wedneſday and Saturday are the moſt generall market-daies of this Kingdome,

dome, and Wednesday, Friday, and Saturday, the usuall fasting dayes of the weeke; and so meetest for the use of butter. Now for churning, take your creame and through a strong and cleane cloth straine it into the churne; and then covering the churne close, and setting it in a place fit for the action in which you are imploid (as in the Summer) in the coolest place of your dairy, and exceeding early in the morning, or very late in the evening: and in the Winter, in the warmest place of your dairy, and in the most temperate houres, as about noone, or a little before or after, and so churne it with swift strokes, marking the noise of the same which will be solid, heavy and intire, untill you heare it alter, and the sound is light, sharp, and more spirity: and then you shall say that your butter breakes, which perceived both by this sound, the lightnesse of the churne-staffe, and the sparkes and drops, which will appeare yellow about the lip of the churne: then cleanse with your hand both the lidde and inward sides of the churne, and having put all together, you shall cover the churne againe, and then with easie strokes round, and not to the bottome, gather the butter together into one intire lumpe and body, leaving no pieces thereof severall or unjoyned.

The handling of butter.

Now for as much as there bee many mischiefes and inconveniences which may happen to butter in the churning, because it is a body of much tendernesse, and neither will endure much heate, nor much cold: for if it be over-heated, it will looke white, crumble, and be bitter in taste, and if it be over-cold, it will not come at all, but make you waste much labour in vaine, which fails to helpe, if you churne your butter in the heate of Summer, it shall not be amisse, if during the time of your

Helpes in churning.

Seasoning of butter.

churning

churning, you place your churne in a paile of cold water as deepe as your Creame riseth in the churne, and in the churning thereof let your strokes goe slow, and be sure that your churne be cold when you put in your Creame: but if you churne in the coldest time of winter, you shall then put in your Creame before the churne bee cold; after it hath beene scalded; and you shall place it within the aire of the fire, and churne it with as swift strokes, and as fast as may be, for the much labouring thereof will keepe it in a continuall warmth, and then you shall have your butter good, sweet, and according to your wish. After your butter is churnd, or churnd and gathered well together in your churne, you shall then open your churne, and with both your hands gather it well together, and take it from the butter-milke, and put it into a very cleane boule of wood, or panshion of earth sweetned for the purpose, and if you intend to spend the butter sweet and fresh, you shall have your boule or panshion filled with very cleane water, and therein with your hand you shall worke the butter, turning and tossing it to and fro, till you have by that labour beaten and washt out all the butter-milke, and brought the butter to a firme substance of it selfe, without any other moisture: which done, you shall take the butter from the water, & with the point of a knife scotch and slash the butter over & over every way, as thick as is possible, leaving no part through which your knife must not passe; for this will cleanse and fetch out the smallest haire or mote, or rag of a strayner, and any other thing which by casuall meanes may happen to fall into it.

The handling of butter.

Cleansing of butter.

After this you shall spread the butter in a boule thin, and take so much salt as you shall thinke convenient, which must by no meanes bee much for sweet butter, and

Seasoning of butter.

and ſprinckle it thereupon, then with your hands worke the butter and the ſalt exceedingly well together; and then make it vp either into diſhes, pounds, or halfe pounds at your pleaſure.

Of May-butter

If during the moneth of *May* before you ſalt your butter you ſaue a lumpe thereof, and put it into a veſſell, and ſo ſet it into the Sun the ſpace of that moneth, you ſhall finde it exceeding ſouerigne and medicinable for wounds, ſtraines, aches, and ſuch like grieuances.

Of poudering up or potting of butter.

Touching the poudring up or potting of butter, you ſhall by no meanes, as in freſh butter, waſh the butter-milke out with water, but onely worke it cleare out with your hands: for water will make the butter ruſty, or reeſſe; this done you ſhall weigh your butter, and know how many pounds there is thereof: for ſhould you weigh it after it were ſalted, you would be deceiued in the weight: which done, you ſhall open the butter, and ſalt it very well and throughly, beating it in with your hand till it be generally diſperſt through the whole butter; then take cleane earthen pots, exceedingly well leaded, leſt the brine ſhould leake through the ſame, and caſt ſalt into the bottome of it: then lay in your butter, and preſſe it downe hard within the ſame, and when your pot is filled, then cover the top thereof with ſalt ſo as no butter be ſeene: then cloſing up the pot let it ſtand where it may bee cold and ſafe: but if your Dairy be ſo little that you cannot at firſt fill up the pot, you ſhall then when you have potted up ſo much as you have, cover it all over with ſalt, and pot the next quantity vpon it till the pot be full.

Now there be *Houſ-wiues* whoſe Dairies being great, can by no meanes conueniently haue their butter con-

Of great Dairies, and their customes.

tained in pots; as in *Holland*, *Suffolke*, *Norfolke*, and such like, and therefore are first to take barrels very close and well made, and after they have salted it well, they fill their barrels therewith; then they take a small sticke, cleane and sweet, and therewith make divers holes downe thorough the butter, even to the bottome of the barrell: and then make a strong brine of water and salt which will beare an egge, and after it is boyled, well skimmed and cooled, then poure it upon the top of the butter till it swimme above the same, and so let it settle. Some use to boile in this brine a branch or two of Rosemary, and it is not amisse, but pleasant and wholesome.

When to pot Butter.

Now although you may at any time betwixt *May* and *September* pot up butter, observing to doe it in the coolest time of the morning: yet the most principall season of all is in the moneth of *May* onely: for then the aire is most temperate, and the butter will take salt the best, and the least subject to reesing.

Vse of Butter-milke.

The best use of butter-milke for the able *Housewife*, is charitably to bestow it on the poore neighbour, whose wants doe daily cry out for sustenance: and no doubt but she shall finde the profit thereof in a divine place, as well as in her earthly businesse. But if her owne wants command her to use it for her owne good, then shee shall of her butter-milke make curds, in this manner: she shall take her butter-milke and put it into a cleane earthen vessell, which is much larger than to receive the butter-milke onely; and looking unto the quantity thereof, shee shall take as it were a third part so much new milke, and set it on the fire, and when it is ready to rise, take it off, and let it coole a little: then poure it into the butter-milk in the same manner as you would

Of Butter-milke-Curds.

would make a posset, and having stirred it about, let it stand: then with a fine skummer, when you will use the curds (for the longer it stands the better the curds will eate) take them up into a cullander and let the whey drop well from it, and then eate them either with Creame, Ale, Wine, or Beere: as for the whey, you may keepe it also in a sweet stone vessell: for it is that which is called whigge, and is an excellent coole drinke and a wholesome; and may very well be drunke a summer through instead of any other drink, and without doubt will slake the thirst of any labouring man as well if not better. Of Whigge.

The next maine profit which ariseth from the Dairy is cheese, of which there be divers kinds, as new milke, or morrow-milke-cheese, nettle-cheese, flouren-milke-cheese, and eddish, or after-math-cheese, all which have their severall orderings and compositions, as you shall perceive by the discourse following: yet before I do begin to speake of the making of the cheese, I will shew you how to order your *Cheeselep-bag* or *Runnet*, which is the most principall thing wherewith your cheese is compounded, and giveth the perfect taste unto the same. Of Cheese.

The *Cheeselep-bag* or *Runnet*, which is the stomacke-bagge of a yong sucking calfe, which never tasted other foode than milke, where the curd lieth undigested. Of these bagges you shall in the beginning of the yeere provide your selfe good store, and first open the bag and powre out into a cleane vessell the curd and thicke substance thereof; but the rest which is not curdled you shall put away: then open the curd and picke out of it all manner of motes, chiers of grasse, or other filth gotten into the same: then wash the curd in so many cold waters, till it be as white and cleane from all Of the Cheese-lep-bagge or Runnet.

sorts

ſorts of moates as is poſſible; then lay it on a cleane cloath that the water may draine from it, which done, lay it in another dry veſſell, then take a handfull or two of ſalt, and rubbe the curd therewith exceedingly: then take your bagge and waſh it alſo in diuers cold waters till it be very cleane, and then put the curd and the ſalt up into the bag, the bag being alſo well rub'd within with ſalt: and ſo put it vp, and ſalt the outſide alſoe ouer: and then cloſe vp the pot cloſe, and ſo keepe them a full yeare before you uſe them. For touching the hanging of them vp in chimny-corners (as courſe *Houſewiues* do) it is ſluttiſh, naught, and unwholeſome, and the ſpending of your runnet whilſt it is new, makes your cheeſe heavy and proue hollow.

Seaſoning of the runnets.

When your runnet or earning is fit to be uſed, you ſhall ſeaſon it after this manner; you ſhall take the bag you intend to vſe, and opening it, put the curd into a ſtone morter or a bowle, and with a wooden peſtle or rolling pinne beate it exceedingly; then put to it the yolkes of two or three egges, and halfe a pint of the thickeſt and ſweeteſt creame you can fleete from your milke, with a peny-worth of ſaffron finely dried and beaten to powder, together with a little Cloues and Mace, and ſtirre them all paſſing well together till they appeare but as one ſubſtance, and then put it up in the bagge againe: then you ſhall make a very ſtrong brine of water and ſalt, and in the ſame you ſhall boile a handfull or two of Saxifrage, and then when it is cold cleare it into a cleane earthen veſſell; then take out of the bag halfe a doſen ſpoonfuls of the former curd and mixe it with the brine, then cloſing the bagge up again, cloſe hang it within the brine, and in any caſe alſo ſteepe in your brine a few Wall-nut-tree leaues, and ſo keepe

your

your runnet a fortnight after before you uſe it; and in this manner dreſſe all your bagges ſo, as you may ever have one ready after another, and the youngeſt a fortnight old ever at the leaſt, for that will make the earning quicke and ſharpe, ſo that foure ſpoonefuls thereof will ſuffice for the gathering and ſeaſoning of at leaſt twelve gallons of milke, and this is the choyceſt and beſt earning which can poſſiblie be made by any *Houſewife*.

To make a new milke or morning-milke-Cheeſe, which is the beſt cheeſe made ordinarily in our Kingdome; you ſhall take your milke early in the morning as it comes from the Cow, and fyle it into a cleane tubbe, then take all the creame alſo from the milke you milk'd the evening before, and ſtraine it into your new milke: then take a pretty quantitie of cleane water, and having made it ſcalding hot, poure it into the milke alſo to ſcald the creame and it together, then let it ſtand, and coole it with a diſh till it be no more than lukewarme; then goe to the pot where your earning bags hang, & draw from thence ſo much of the earning without ſtirring of the bag, as will ſerve for your proportion of milke, & ſtraine it therein very carefully; for if the leaſt more of the curd of the earning fal into the cheeſe, it will make the cheeſe rot and mould; when your earning is put in, you ſhall cover the milke, and ſo let it ſtand halfe an houre or thereabout; for if the earning be good it will come in that ſpace; but if you ſee it doth not, then you ſhall put in more: being come, you ſhall with a diſh in your hand breake and maſhe the curd together, poſſing and turning it about diverſly; which done, with the flat palmes of your hands very gently preſſe the curde downe into the bottome of the tubbe, then with

To make a new Milke Cheeſe compound.

a thinne dish take the whey from it as cleane as you can, and so having prepared your Cheese-fat answerable to the proportion of your curd with both your hands joyned together, put your curd therein and breake it and presse it down hard into the fat till you have fild it, then lay upon the top of the curd your flat Cheese-boord, and a little small weight thereupon, that the whey may drop from it into the under vessell; when it hath done dropping, take a large Cheese-cloth, and having wet it in the cold water, lay it on the Cheese-boord, and then turne the Cheese upon it; then lay the cloth into the Cheese-fat: and so put the Cheese therein againe, and with a thin slice thrust the same downe close on every side: then laying the cloth also over the top to lay on the Cheese-boord, and so carry it to your great presse, and there presse it under a sufficient waight: after it hath beene there prest halfe an houre, you shall take it and turne it into a dry cloth, and put it into the presse againe, and thus you shall turne it into dry cloaths at least five or sixe times in the first day, and ever put it under the presse againe, not taking it there from, till the next day in the evening at soonest, & the last time it is turned, you shall turne it into the dry fat without any cloth at all.

When it is prest sufficiently and taken from the fat, you shall then lay it in a kimnell, and rub it first on the one side, and then on the other with salt, and so let it lie all that night, then the next morning, you shall do the like againe, and so turne it upon the brine, which comes from the salt two or three dayes or more, according to the bignesse of the Cheese, and then lay it upon a faire table or shelfe to drie, forgetting not every day to turne & rubbe it all over with a cleane cloth, and thus to order it, till such time that it be throughly drie, and fit to put into

into the Cheese hecke: and in this manner of drying, you must observe to lay it first where it may dry hastily, and after, where it may dry at more leisure: thus may you make the best and most principall Cheese.

Now, if you will make Cheese of two meales, as your mornings new Milke, and the evenings Creame, milke and all, you shall do but the same formerly rehearsed. And if you will make a simple morrow-milke Cheese, which is all of new-milke and nothing else, you shall then doe as is before declared, onely you shall put in your earning so soone as the milke is fill'd (if it have any warmth in't) and not scald it: but if the warmth be lost, you shall put it into a Kettle and give it the aire of the fire.

A Cheese of two meales.

Cheese of one meale.

If you will have a very dainty nettle Cheese, which is the finest Summer-cheese which can be eaten; you shall do in all things as was formerly taught in the new-milke-cheese compound; Onely you shall put the curd into a very thinne cheese-fatt, not above halfe an inch, or a little better deepe at the most, and then when you come to dry them, as soone as it is drained from the brine, you shall lay it upon fresh Nettles and cover it all over with the same; and so lying where they may feele the aire, let them ripen therein, observing to renew your Nettles once in two daies, and every time you renew them, to turne the Cheese or Cheeses, and to gather your Nettles as much without stalkes as may be, and to make the bed both under and aloft as smooth as may be, for the more even and fewer wrinkles that your Cheese hath, the more dainty is your *Housewife* accounted.

Of Nettle Cheese.

If you will make floaten milke-cheese, which is the courcest of all cheeses, you shall take some of the milke

Of floaten milk Cheese.

and

and heate it upon the fire to warme all the reſt: but if it be ſo ſowre, that you dare not adventure the warming of it, for feare of breaking, then you ſhall heate water, and with it warme it; then put in your earning, as before ſhewed, and gather it, preſſe it, ſalt it, and dry it as you did all other Cheeſes.

Of eddiſh Cheeſe.

Touching your eddiſh Cheeſe, or Winter Cheeſe, there is not any difference betwixt it and your Summer Cheeſe touching the making thereof onely, becauſe the ſeaſon of the yeere denieth a kindly drying or hardning thereof, it differeth much in taſte, and will be ſoft alweies; and of theſe eddiſh Cheeſes, you may make as many kindes as of Summer Cheeſes, as of one meale, two meales, or of milke that is floaten.

Of Whey and the profits.

When you have made your Cheeſe, you ſhall then have care of the Whey, whoſe generall uſe differeth not from that of Butter-milke, for either you ſhall preſerve it to beſtow on the poore, becauſe it is a good drinke for the labouring-man, or keepe it to make curds out of it, or laſtly, to nouriſh and bring up your Swine.

Of Whey-curds.

If you will make curds of your beſt Whey, you ſhall ſet it upon the fire, and being ready to boile, you ſhall put into it a pretty quantity of Butter-milke, and then as you ſee the curds ariſing up to the top of the Whey, with a Skummer skimme them off, and put them into a Cullender, and then put in more Butter-milke, and thus doe, whileſt you can ſee any curds ariſe; then the Whey being drained cleane from them, put them into a cleane veſſell, and ſo ſerve them forth as occaſion ſhall ſerve.

CHAP.

Chap. 7.

The Office of the Malster, and the severall secrets, and knowledges belonging to the making of Malt.

IT is most requisite and fit that our *Housewife* be experienced and well practised in the well making of Malt, both for the necessary and continuall use thereof, as also for the generall profit which accrueth and ariseth to the *Husband, Housewife*, and the whole family, for as from it is made the drinke, by which the houshold is nourished and sustained, so to the fruitfull husbandman (who is the master of rich ground, and much tillage) it is an excellent merchandize, and a commodity of so great trade, that not alone especiall Townes and Countries are maintained thereby, but also the whole Kingdome, and divers others of our neighbouring Nations. This office or place of knowledge belongeth particularly to the *Housewife*, and though we have many excellent Men-malsters, yet it is properly the worke and care of the woman, for it is a house-worke, and done altogether within doores, where generally lieth her charge, the man only ought to bring in, and to provide the graine, and excuse her from portage or too heavie burthens, but for the Art of making the Malt, and the severall labours appertaining to the same, even from the Fat to the Kilne, it is onely the worke of the *Housewife* and the Maid-servants to her appertaining.

To begin then with the first knowledge of our Malster, it consisteth in the election and choise of graine fit to make Malt, of which there are indeed truely but two kinds, that is to say, Barley, which is of all

Election of Corne for Malt.

other

other the most excellent for this purpose; and Oates, which when Barley is scant or wanting, maketh also good and sufficient Malt: and though the drinke which is drawne from it be neither so much in the quantity, so strong in the substance, nor yet so pleasant in the taste, yet is the drinke very good and tolerable, and nourishing enough for any reasonable creature. Now I doe not deny, but there may be made Malt of Wheate, Pease, Lupins, Fetches & such like, yet it is with us, of no retained custome, nor is the drink simply drawne or extracted from those grains, either wholesome or pleasant, but strong & fulsome; therefore I think it not fit to spend any time in treating of the same. To speake then of the election of Barly, you shall understand that there be diverse kinds thereof, according to the alteration of soiles, some being big, some little, some ful, some empty, some white, some browne, & some yellow: but I will reduce all these into three kindes, that is, into the Clay-barly, the Sand-barly, and the Barly which groweth on the mixt soile. Now the best Barly to make Malt on, both for yeelding the greatest quantity of matter, and making the strongest, best and most wholesome drinke, is the Clay-barly well drest, being cleane Corne of it selfe, without weede or Oates, white of colour, full in substance, and sweete in taste: that which groweth on the mixt grounds is the next; for though it bee subject to some Oates and some Weeds: yet being painefully and carefully drest, it is a faire and a bould corne, great and full; and though somewhat browner than the former, yet it is of a faire and cleane complexion. The last and worst graine for this purpose is the Sand-barly, for although it be seldome or never mixt with Oates, yet if the tillage be not painefully and cunningly handled,

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it is much subject to weedes of divers kinds, as tares, fetches, and such like, which drinke up the liquor in the brewing, and make the yeeld or quantity thereof very little and unprofitable: besides the graine naturally of it selfe hath a yellow, withered, empty huske, thicke and unfurnished of meale, so that the drinke drawne from it, can neither be so much, so strong, so good, nor so pleasant; so that to conclude, the cleane Clay-barley is best for profit in the sale drinke, for strength and long lasting.

The Barley in the mixt grounds will serve well for households and families: and the sandy barley for the poore, and in such places where better is not to be gotten. And these are to be knowne of every *Husband* or *House wife*: the first by his whitenesse, greatnesse and fulnesse: the second by his browneneſſe, and the third by his yellowneſſe, with a darke browne nether ende, and the emptineſſe and thickneſſe of the huske (and in this election of Barley) you shall note, that if you finde in it any wild oates, it is a signe of a rich clay-ground, but ill husbanded, yet the malt made thereof is not much amisse, for both the wilde oate and the perfit oate give a pleasant sharpe rellish to the drinke, if the quantity be not too much, which is evermore to bee respected. And to conclude this matter of election, great care must be had of both *Husband* and *House-wife*, that the barley chosen for malt, bee exceeding sweet, both in smell and taste, and very cleane drest: for any corruption maketh the malt loathsome, and the foule dressing affordeth much losse.

After the skilfull election of graine for malt, the *House-wife* is to looke to the situation, goodnesse and apt accommodation of the Malt-house; for in that consisteth

Of the Malt-house, and the situation.

sisteth both much of the skill, and much of the profit: for the generall situation of the house, it would (as neere as can be) stand upon firme dry ground, having prospect every way, with open windowes and lights to let in the Winde, Sunne, and Ayre, which way the Malster pleaseth, both to coole and comfort the graine at pleasure, and also close-shuts or draw-windowes to keepe out the Frosts and Stormes, which are the onely lets and hinderances for making the malt good and perfect: for the modell or forme of these houses, some are made round, with a court in the middle, some long, and some square, but the round is the best, and the least laborious; for the cesternes or Fats being placed (as it were) at the head, or beginning of the circle, and the pumpe or well (but the pumpe is best) being close adioyning, or at least by conveyance of troughes made as usefull as if it were neere adioyning, the Corne being steept, may with one persons labour and a shovell, bee cast from the fat, or cesterne to the floore and there coucht; then when the couch is broken, it may in the turning either with the hand or the shovell, be carried in such a circular house round about from one floore to another, till it come to the Kilne, which would also be placed next over against the pump and cesternes, and all contained under one roofe; and thus you may empty steeping after steeping, and carry them with one persons labour from floore to floore, till all the floores be fild: in which circular motion you shall finde, that ever that which was first steept, shall first come to the Kilne, and so consequently one after another in such sort as they were steeped, and your worke may evermore bee constant, and your floores at no time empty, but at your owne pleasure, and all the

the labour done onely with the hand and ſhovell, without carrying or recarrying, or lifting heavy burthens, is both troubleſome and offenſive, and not without much loſſe, becauſe in ſuch caſes ever ſome graine ſcattereth.

Now over againſt the Kilne-hole or Furnace (which is evermore intended to bee on the ground) ſhould a convenient place be made to pile the fuell for the kilne, whether it bee Straw, Bracken, Furres, Wood, Coale, or other fewell; but ſweet Straw is of all other the beſt and neateſt. Now it is intended that this malt-houſe may be made two Stories in height, but no heigher: over your Ceſternes ſhall bee made the Garners, wherein to keepe your Barley before it bee ſteeped: in the bottomes of theſe Garners, ſtanding directly over the Ceſternes, ſhall bee convenient holes made to open and ſhut at pleaſure, through which ſhall runne downe the Barley into the Ceſterne. Over the bed of the Kilne can bee nothing but the place for the Haire cloth, and a ſpacious roofe open every way that the ſmoke may have free paſſage: and with the leaſt ayre bee carryed from the Kilne, which maketh the malt ſweet and pleaſant. Over that place where the fewell is piled, and is next of all to the bed of the Kilne, would likewiſe bee other ſpacious Garners made, ſome to receive the Malt aſſoone as it is dryed with the Combe and Kilne-duſt, in which it may lye to mellow and ripen; and others to receive the Malt after it is skreened and dreſt up; for to let it bee too long in the Combe, as above three moneths at longeſt, will make it both corrupt, and breed Weevels and other Wormes, which are the greateſt deſtroyers of malt that may be. And theſe garners ſhould be ſo conve-

niently plac't before the front of the Kilne-bed, that either with the shovell or a small scuttle you may cast, or carry the malt once dryed into the Garners. For the other part of the flooers, they may bee imployed as the ground flooers are, for the receiving of the malt when it comes from the cesterne: and in this manner, and with these accommodations you may fashion any malt-house, either round, long, square, or of what proportion soever, as either your estate, or the convenience of the ground you have to build on shall administer.

Of Malt-flowres.

Next to the site or proportion of the ground, you shall have a principall care for the making of your malt-flooers, in which (all the custome and the nature of the soile binds many times, a man to sundry inconveniences, and that a man must necessarily build according to the matter he hath to build withall, from whence ariseth the many diversities of malt-flooers) yet you shall understand, that the generall best malt-flooer, both for Summer and Winter, and all seasons, is the cave or vaulted arch which is hewed out of a dry and maine greede rocke, for it is both warme in Winter, coole in Summer and generally comfortable in all seasons of the yeare whatsoever. For it is to bee noted, that all *Housewives* do give over the making of malt in the extreame heate of Summer, it is not because the malt is worse that is made in Summer than that which is made in winter, but because the flooers are more unseasonable, and that the Sun getting a power into such open places, maketh the graine which is steeped to sproute and come so swiftly, that it cannot indure to take time on the floore, and get the right seasoning which belongeth to the same: whereas these kind of vaults being dry, and as it were couche

under

under the ground, not onely keepeth out the Sunne in Summer, which maketh the Malt come much too fast, but also defendeth it from frosts and colde bitter blasts in sharpe Winters, which will not suffer it to come, or sprout at all; or if part doe come and sprout, as that which lyeth in the heart of the bed, yet the upper parts and outside by meanes of extreame colde cannot sprout: but being againe dryed, hath his first hardnesse, and is one and the same with raw Barley; for every *Housewife* must know, that if Malt doe not come as it were altogether, and at an instant, and not one come more than another, the Malt must needs bee very much imperfect. The next flower to the Cave, or dry sandy Rocke, is the flower which is made of earth, or a stiffe strong binding Clay well watered, and mixt with Horse-dung, and Soape-ashes, beaten and wrought together, till it come to one solide firmenesse; this Flower is a very warme comfortable Flower in the Winter season, and will helpe the graine to come and sprout exceedingly, and with the helpe of windowes to let in the colde ayre, and to shut out the violent reflection of the Sunne, will serve very convenendy for the making of male, for nine months in the yeare, that is to say, from *September* till the end of *May*; but for *Lime*, *Clay*, and *Ashes*, to imploy it to that purpose, will breed both losse and incumbrance. The next Flower to this of earth, is that which is made of plaster, or plaster of paris, being burnt in a seasonable time, and kept from wet, till the time of shooting, and then smoothely laid, and well levelled; the imperfection of the plaster flower is onely the extreame coldnesse thereof, which in frosty and cold seasons, so blindeth in the heart of the graine,

that it cannot sprout, for which cause it behooveth every Maltster that is compelled to these Floores, to looke well into the seasons of the yeere, and when he findeth either the Frostes, Northerne blasts, or other nipping stormes to rage too violently, then to make his first couches or beds, when the graine commeth newly out of the Cesterne, much thicker and rounder than otherwise hee would doe; and as the cold ceaseth, or the corne increaseth in sprouting, so to make couches or beds thinner and thinner, for the thicker and closer the graine is coucht and laid together, the warmer it lieth, and so catching heat, the sooner it sprouteth, and the thinner it lieth the cooler it is, and so much the slower in sprouting. This floore, if the windowes be close, and guard off the Sunne sufficiently, will (if necessity compell) serve for the making of Malt tenne months in the yeare, onely in *July* and *August* which containe the Dogge-dayes, it would not bee imployed, nor in the time of any Frost, without great care and circumspection.

Againe, there is in this floore another fault, which is a naturall casting out of dust, which much foileth the graine, and being dried, makes it looke dun and foule, which is much disparagement to the Maltster; therefore she must have great care that when the Malt is taken away, to sweepe and keepe her floore as cleane and neate as may bee. The last and worst is the boarded floore, of what kind soever it be, by reason of the too much heat thereof, and yet of boarded floores the Oken boarded is the coolest and longest lasting; the Elme or Beech is next; then the Ashe, and the worst (though it bee the faireſt to the eye) is the Firre, for it hath in it selfe (by reason of the Frankincence and

Turpe-

Turpentine which it holdeth) a naturall heat, which mixed with the violence of the Sunne in the Summer-time, forceth the graine not onely to sprout, but to grow in the couch, which is much losse, and a foule imputation. Now these boarded floores can hardly bee in use for above five months at the most, that is to say, *October*, *November*, *December*, *January* and *February*: for the rest, the Sun hath too much strength, and these boarded floores too much warmth; and therfore in the coolest times it is good to observe to make the couches thinne, whereby the ayre may passe thorough the corne, and so coole it, that it may sprout at leasure.

Now for any other floore besides these already named, there is not any good to malt upon; for the common floore which is of naturall earth, whether it bee Clay, Sand, or Gravell, if it have no mixture at all with it more than its owne nature, by oft treading upon it, groweth to gather the nature of saltnesse or Salt-peter into it, which not onely giveth an ill taste to the graine that is laid upon the same, but also his moisture and mouldinesse, which in the moist times of the yeare arise from the ground, it often corrupteth and putrefieth the corne. The rough paved floore by reason of the unevennesse, is unfit to malt on, because the graine getting into the crannies, doth there lye, and is not removed or turned up and downe as should be with the hand, but many times is so fixed to the ground, it sprouteth and groweth up into a greene blade, affording much losse and hinderance to the owner. Imperfect Floores.

The smooth paved floore, or any floore of stone whatsoever, is full as ill; for every one of them naturally against much wet or change of weather, will

sweate and distill forth such abundant moisture, that the Malt lying upon the same, can neither dry kindly and expell the former moisture received in the cesterne, but also by that over-much moisture many times rotteth, and comes to be altogether useless. Lastly, for the flower made of lime and haire, it is as ill as any formerly spoken of, both in respect of the nature of the Lime, whose heat and sharpnesse is a maine enemy to Malt or any moist corne, as also in respect of the weaknesse and brittlenes of the substance thereof, being apt to moulder and fall in pieces with the lightest treading on the same, and that lime and dust once mixing with the corne, it doth so poison and suffocate it, that it can neither sprout nor turne serviceable for any use.

Of the Kilne and the building thereof.

Next unto the Malt flowers, our Malster shall have a great care in the framing and fashioning of the Kilne, of which there are sundry sorts of moddels, as the ancient forme which was in times past used of our forefathers, being onely made in a square proportion at the top with small solines or rafters, joyned within foure inches one of another, going from a maine beame crossing the mid part of that great square: then is this great square from the top, with good and sufficient studds to be drawne slopewise narrower and narrower, till it come to the ground, so that the harth or lowest part thereof may bee not above a fifth part to the great square above, on which the Malt is laid to bee dried, and this harth shall bee made hollow and descending, and not levell nor ascending: and these Kilns doe not hold any certaine quantity in the upper square, but may ever bee according to the frame of the house, some being thirty foot each way, some twenty, & some eighteene. There be other Kilnes which are made after this

this manner open and slope, but they are round of proportion; but both these kind of Kilnes have one fault, which is danger of fire; for lying every way open and apt for the blaze, if the Malster be any thing negligent, either in the keeping of the blaze low and forward, or not sweeping euery part about the harth any thing that may take fire, or foreseeing that no strawes which doe belong to the bedding of the Kilne do hang downe, or are loose, whereby the fire may take hold of them, it is very possible that the Kilne may bee set on fire, to the great losse and often undoing of the owner.

Which to prevent, and that the Malster may have better assurance and comfort in her labour, there is a Kilne now of generall use in this Kingdome, which is called a French Kilne, being framed of a Bricke, Ashler, or other fire-stone, according to the nature of the soyle in which *Husbands* and *Housewives* live: and this French Kilne is ever safe and secure from fire, and whether the Malster wake or sleepe, without extreame willfull negligence, there can no danger come to the Kilne; and in these Kilnes may bee burnt any kind of fewell whatsoever, and neither shall the smoke offend or breed ill taste in the Malt, nor yet discolour it, as many times it doth in open Kilnes, where the Malt is as it were, covered all over, & even parboyld in smoke: so that of all sorts of Kilnes whatsoever, this which is called the French Kilne, is to be preferred and onely embraced. Of the forme or moddell whereof, I will not here stand to entreat, because they are now so generally frequent amongst us, that not a Mason or Carpenter in the whole Kingdome but can build the same; so that to use more words thereof were tediousnesse to little purpose. Now there is another kind of

The perfect Kilne.

Kilne

Kilne which I have seene (and but in the West-country onely) which for the profitable quaintnesse thereof, I tooke some speciall note of, and that was a Kilne made at the end of a Kitchin Raunge or Chimney, being in shape round, and made of Bricke, with a little hollownesse narrowed by degrees, into which came from the bottome and midst of the Kitchin-chimney a hollow tunnell or vault, like the tunnell of a Chimney, and ranne directly on the backe-side, the hood or backe of the Kitchin Chimney; then in the midst of the Chimney, where the greatest strength of the fire was made, was a square hole made of about a foote and a halfe every way, with an Iron thicke plate to draw to and fro, opening and closing the hole at pleasure; and this hole doth open onely into that tunnell which went to the Kilne, so that the Malt being once laid, and spread upon the Kilne, draw away the Iron plate, and the ordinary fire with which you dresse your meate, and performe other necessary businesses, is sucked up into this tunnell, and so conveieth the heat to the Kilne, where it drieth the Malt with as great perfection, as any Kilne I saw in my life, and needeth neither attendance or other ceremony more, than once in five or sixe houres to turne the Malt, and take it away when it is dried sufficiently: for it is here to be noted, that how great or violent soever the fire bee which is in the Chimney, yet by reason of the passage, and the quantity thereof, it carrieth no more but a moderate heat to the Kilne; and for the smoke, it is so carried away in other loope-holes which runne from the hollownesse betweene the tunnell and the Malt-bed, that no Malt in the world can possibly be sweeter, or more delicately coloured: only the fault of these Kilns are, that they

are

are but little in compaſſe, and ſo cannot dry much at a time, as not above a quarter or ten ſtrike at the moſt in one drying, and therefore are no more but for a mans owne particular uſe, and for the furniſhing of one ſetled family; but ſo applied, they exceede all the Kilnes that I have ſeene whatſoever.

Bedding of the Kilne.

When our Malſter hath thus perfected the Malt-houſe and Kilne, then next looke to the well bedding of the Kilne, which is diverſly done according to mens divers opinions; for ſome uſe one thing, and ſome another, as the neceſſity of the place, or mens particular profite draw them.

But firſt to ſhew you what the bedding of a Kilne is, you ſhall underſtand, that it is a thinne covering laid upon the open rafters, which are next unto the heat of the fire; being made either ſo thinne or ſo open that the ſmalleſt heat may paſſe thorow it, and come to the corne: this bed muſt be laid ſo even and level as may bee, and not thicker in one place than another, leaſt the Malt drie too faſt where it is thinneſt, and too ſlowly where it is thicke, and ſo in the taſte ſeeme to bee of two ſeverall dryings: it muſt alſo bee made of ſuch ſtuffe, as having received heat, it will long continue the ſame, and bee an aſſiſtant to the fire in drying the corn: it ſhould alſo have in it no moiſt or dankiſh propertie, leaſt at the firſt receiving of the fire, it ſend out a ſtinking ſmoke, and ſo taint the Malt; nor ſhould it bee of any rough or ſharpe ſubſtance, becauſe upon this bed or bedding is laid the haire-cloth, and on the haire-cloth the Malt, ſo that with the turning the malt, and treading upon the cloth, ſhould the bed bee of any ſuch roughneſſe, it would ſoone weare out the haire-cloth, which would bee both

loſſe

losse and ill *House-wifery*, which is carefully to bee eschewed.

But now for the matter or substance whereof this bedding should be made, the best, neatest, and sweetest, is cleane long Rye straw, with the eares onely cut off, and the ends layd even together, not one longer than another, and so spread upon the rafter of the Kilne as even and thinne as may be, and layd, as it were, straw by straw in a just proportion, where skill and industry may make it thin or thicke at pleasure, as but the thicknesse of one straw, or of two, three, foure or five, as shall seeme to your judgement most convenient, and then this, there can bee nothing more even, more dry, sweete, or open to let in the heat at your pleasure: and although in the old open Kilnes it bee subject to danger of fire, by reason of the quickenesse to receive the flame, yet in the *French* Kilnes (before mentioned) it is a most safe bedding, for not any fire can come neere unto it. There bee others which bed the Kilne with Mat; and it is not much to bee misliked, if the Mat bee made of Rye straw sowed, and woven together according to the manner of the Indian Mat, or those usuall thinne Bent Mats, which you shall commonly see in the Summer time, standing in husbandmens Chimneyes, where one bent or straw is laid by another, and so woven together with a good strong packe-thread: but these Mats according to the old Proverbe (More cost more Worship) for they are chargeable to bee bought, and very troublesome in the making, and in the wearing will not outlast one of the former loose beddings; for if one thread or stitch breake, immediately most in that rowe will follow: onely it is most certaine, that during the

time

time it lasteth it is both good, necessary and handsome. But if the matt bee made either of Bulrushes, Flaggs, or any other thicke substance (as for the most part they are) then it is not so good a bedding, both because the thickenesse keepeth out the heate, and is long before it can bee warmed; as also in that it ever being cold, naturally of it selfe draweth into it a certaine moysture, which with the first heate being expelled in smoke, doth much offend and breed ill taste in the malt. There bee others that bed the Kilne with a kinde of matt made of broad thinne splints of wood wrought checker-wise one into another, and it hath the same faults which the thicke matt hath; for it is long in catching the heate, and will ever smoke at the first warming, and that smoke will the malt smell on ever after; for the smoke of wood is ever more sharpe and piercing then any other smoke whatsoever. Besides this wooden matt, after it hath once bedded the Kilne, it can hardly afterward be taken up or removed; for by continuall heat, being brought to such an extreame dryneſſe, if upon any occasion either to mend the Kilne, or cleanse the Kilne, or doe other necessary labour underneath the bedding, you shall take up the wooden mat, it would presently cracke, and fall to pieces: and be no more serviceable. There be others which bed the Kilne with a bedding made all of wickers, of small wands foulded one into another like a hurdle, or such like wandworke; but it is made very open, every wand at least two or three fingers one from another: and this kinde of bedding is a very strong kind of bedding, and will last long, and catcheth the heat at the first springing, onely the smoke is offensive, and the roughnes without great care used,

will

will soone weare out your haire-cloth: yet in such places where straw is not to be got or spared, and that you are compelled onely to use wood for your fewell in drying your Malt, I allow this bedding before any other, for it is very good, strong and long lasting: besides, it may be taken up and set by at pleasure, so that you may sweepe and cleanse your Kilne as oft as occasion shall serve, and in the neate and fine keeping of the Kilne, doth consist much of the *House-wives* Art; for to bee choakt either with dust, durt, soot or ashes, as it shewes sluttishnesse and sloth, the onely great imputation hanging over a *House-wife*, so they likewise hinder the labour, and make the malt dry a great deale worse, and more unkindly.

Of fewell for the drying of Malt.

Next the bedding of the Kilne, our Malster by all meanes must have an especiall care with what fewell she dryeth the Malt; for commonly according to that it ever receiveth and keepeth the taste, if by some especiall Art in the Kilne that annoyance be not taken away. To speake then of Fewels in generall, they are of divers kindes according to the natures of soyles, and the accommodation of places in which men live: yet the best and most principall fewell for the Kilnes (both for sweetnesse, gentle heate, and perfect drying) is either good Wheat straw, Rye-straw, Barley-straw, or Oaten-straw; and of these the Wheat-straw is the best, because it is most substantiall, longest lasting, makes the sharpest fire, and yeelds the least flame: the next is Rie-straw, then Oaten-straw, and last Barley-straw, which by reason it is shortest, lightest, least lasting, and giveth more blaze then heat, it is last of these white strawes to be chosen, & where any of these faile, or are scarce, you may take the stubble or after-crop

of

of them, when the upper part is shorne away; which being well dryed and housed, is as good as any of the rest already spoken of, and lesse chargeable, because it is not fit for any better purpose as to make fodder, meanure, or such like, of more then ordinary thatching, and so fittest for this purpose. Next to these white strawes, your long Fenne-rushes, being very exceedingly well withered and dryed, and all the sappie moysture gotten out of them, and so either safely housed or stacked, are the best fewell: for they make a very substantiall fire, and much lasting, neither are apt to much blazing, nor the smoke so sharpe or violent but may very well bee endured: where all these are wanting, you may take the straw of Pease, Fetches, Lupins, or Tares, any of which will serve, yet the smoke is apt to taint, and the fire without prevention dryeth too suddenly and swiftly. Next to these is cleane Beane-straw, or straw mixt of Beanes and Pease together; but this must be handled with great discretion, for the substance containeth so much heat, that it will rather burne then dry, if it bee not moderated, and the smoke is also much offensive. Next to this beane-straw is your Furrs, Gorse, Whinnes, or small Brush-wood, which differeth not much from Beane-straw; onely the smoke is much sharper, and tainteth the Malt with a much stronger savour. To these I may adde Braken or Braks, Ling, Heath, or Brome, all which may serve in time of necessity, but each one of them have this fault, that they adde to the Malt an ill taste or savour. After these I place Wood of all sorts, for each is alike noysome, and if the smoke which commeth from it touch the Malt, the infection cannot bee recovered; from whence amongst the best *Husbands* hath sprung this opinion,

that.

that when at any time drinke is ill tasted, they say straight, it was made of Wood-dryed Malt. And thus you see the generality of fuels, their vertues, faults, and how they are to bee imployed. Now for Coale of all kindes, Turfe or Peate, they are not by any meanes to be used under Kilnes, except where the furnaces are so subtilly made, that the smoke is convayed a quite contrary way, and never commeth neere the Malt; in this case it skilleth not what fuell you use, so it bee durable and cheape it is fit for the purpose, onely great regard must be had to the gentlenesse of the fire; for as the old Proverbe is (Soft fire makes sweet Malt) so too rash and hasty a fire scorcheth and burneth it, which is called amongst Malsters Fire-fangd; and such Malt is good for little or no purpose: therefore to keepe a temperate and true fire, is the onely Art of a most skilfull Malster.

When the Kilne is thus made and furnished of all necessaries duely belonging to the same, our Malsters next care shall bee to the fashioning and making of the Garners, Hutches, or Holds in which both the malt after it is dried, and the Barly before it bee steeped, is to bee kept and preserved; and these Garners or Safes for Corne are made of divers fashions, and divers matters, as some of Boords, some of Bricke, some of Stone, some of Lime and Haire, and some of mud, Clay or Loame: but all of these have their severall faults; for Wood of all kindes breedeth Weevell and Wormes which destroy the Graine, and is indeed much too hot: for although malt would ever be kept passing drie, yet never so little over-plus of heate withers it, and takes away the vertue; for as moysture rots and corrupts it, so heate takes away and

decayeth

decayeth the ſubſtance. Bricke, becauſe it is layde with Lime, is altogether unwholeſome, for the Lime being apt at change of weather to ſweate, moyſteneth the graine, and ſo tainteth it, and in the drieſt ſeaſons with the ſharpe hot taſte, doth fully as much offend it: thoſe which are made of Stone are much more noyſome, both in reſpect of the reaſons before rehearſed, as alſo, in that all Stone of it ſelfe will ſweate, and ſo more and more corrupteth the graine which is harboured in it. Lime and haire being of the ſame nature, carrieth the ſame offences, and is in the like ſort to bee eſchewed. Now for mud, clay, or loame, in as much as they muſt neceſſarily be mixed with wood, becauſe otherwiſe of themſelves they cannot knit or binde together, and beſides, that the clay or loame muſt bee mixt either with chopt hey, chopt ſtraw, or chopt Litter, they are as great breeders of Wormes and vermine as wood is, nor are they defences againſt mice, but eaſie to be wrought through, and ſo very unprofitable for any *Husband* or *Houſe-wife* to uſe. Beſides, they are much too hot, and beeing either in a cloſe houſe neere the kilne, or the backe or face of any other Chimney, they drye the corne too ſore, and make it dwindle and wither, ſo that it neither filleth the buſhel, nor inricheth the liquor, but turnes to loſſe every way. The beſt Garner then that can bee made both for ſafety and profit, is to be made either of broken tile-ſhreads, or broken bricks, cunningly and even layd, and bound together with Plaſter of Paris, or our ordinary *Engliſh* Plaſter, or burnt *Alablaſter*, and then covered all over, both within and without, in the bottome, and on every ſide, at leaſt three fingers thick with the ſame Plaſter, ſo as no bricke or tyle-ſhread may by

any meanes be ſeene, or come neere to touch the corne; and theſe Garners you may make as bigge, or as little as you pleaſe, according to the frame of your houſe, or places of moſt convenience for the purpoſe, which, indeed, would ever be as neere the Kilne as may be, that the aire of the fire, in the daies of drying, may come unto the ſame, or elſe neere the backes or ſides of Chimneyes, where the aire thereof may correct the extreme coldneſſe of the plaſter, which of all things that are bred in the earth, is the coldeſt thing that may be, and yet moſt dry, and not apt to ſweat, or take moiſture, but by ſome violent extremity, neither will any Worme or Vermine come neere it, becauſe the great coldneſſe thereof is a mortall enemy to their natures, and ſo the ſafeſt and longeſt theſe Garners of plaſter keepe all kinde of Graine and pulſe in the beſt perfection.

The making of Ceſternes.

After theſe Garners, Hutches, or large Keepes for corne are pefected and made, and fitly adjoyned to the Kilne, the next thing that our Maltſter hath to looke unto, is the framing of the Fatts or Ceſternes, in which the corne is to be ſteeped, and they are of two ſorts, that is, either of Coopers worke, being great Fats of wood, or elſe of Maſons worke, being Ceſternes made of ſtone; but the Ceſterne of ſtone is much the better; for beſides that theſe great Fats of wood are very chargeable and coſtly (as a Fat to containe foure quarters of Graine, which is but two and thirty buſhells, cannot be afforded under twenty ſhillings) ſo likewiſe they are very caſuall and apt to miſchance and ſpilling; for and beſides their ordinary wearing, if in the heate of Summer they be never ſo little neglected without water, and ſuffered to be over-

over-drie, it is ten to one in the Winter they will be ready to fall in pieces; and if they be kept moist, yet if the water be not oft shifted and preserved sweete, the Fatt will soone taint, and being once growne faultie, it is not onely irrecoverable, but also whatsoever commeth to be steeped in it after, will be sure to have the same savour, besides the wearing and breaking of Garthes and Plugges, the binding, cleansing, sweetning, and a whole world of other troubles and charges doe so daily attend them, that the benefit is a great deale short of the incumbrance; whereas the stone Cesterne is ever ready and usefull, without any vexation at all, and being once well and sufficiently made, will not need trouble or reparation (more than ordinary washing) scarce in a hundred yeeres.

Now the best way of making these Malt-Cesternes, is, to make the bottomes and sides of good tyle-shreads, fixed together with the best Lime and Sand, and the bottome shall be raised at least a foot and a halfe higher than the ground, and at one corner in the bottome, a fine artificiall round hole must be made, which being outwardly stopt, the Malster may through it draine the Cesterne dry when hee pleaseth, and the bottome must be so artificially level'd and contrived, that the water may have a true descent to that hole, and not any remaine behind when it is opened.

Now when the modell is thus made of Tile-shreads, which you may doe great or little at your pleasure, then with Lime & haire, and Beasts blood mixed together, you shall cover the bottome at least two inches thicke, laying it levell and plaine, as is before shewed: which

done, you shall also cover all the sides and topps, both within and without with the same matter, at least a good fingers thickenesse, and the maine Wall of the whole Cesterne shall be a full foote in thicknesse, as well for strength and durablenesse, as other privie reasons for the holding the graine and water, whose poise and weight might otherwise indanger a weaker substance. And thus much concerning the Malt-house, and those severall accommodations which doe belong unto the same.

The manner how to make Malt.

I will now speake a little in generall as touching the Art, Skill, and knowledge of Malt-making, which I have referred to the conclusion of this Chapter, because, whosoever is ignorant in any of the things before spoken of, cannot by any meanes ever attaine to the perfection of most true, and most thrifty malt-making: To beginne then with this Art of making, or (as some terme it) melting of Malt, you shall first (having proportioned the quantity you meane to steepe, which should ever be answerable to the continent of your Cesterne, and your Cesterne to your floores) let it either run downe from your upper Garner into the Cesterne, or otherwise be carried into your Cesterne, as you shall please, or your occasions desire, and this Barley would by all meanes be very cleane, and neatly dreſt; then when your Cesterne is filled, you shall from your Pump or Well, convey the water into the Cesterne, till all the corne be drench'd, and also the water float above it: if there be any corne that will not sinke, you shall with your hand stirre it about, and wet it, and so let it rest, and cover the Cesterne; and thus for the space of three nights you shall let the corne steepe in the water. After the third night is expired,

the next morning you shall come to the Cesterne, and plucke out the plug or bung-sticke which stoppeth the hole in the bottome of the Cesterne, and so draine the water cleane from the Corne, and this water you shall by all meanes save, for much light Corne and others will come forth with this draine-water, which is very good Swines meate, and may not be lost by any good *House-wife*. Then having drained it you shall let the Cesterne droppe all that day, and in the evening with your shovell you shall empty the Corne from the Cesterne unto the Malt-flowre, and when all is out, and the Cesterne cleansed, you shall lay all the wet Corne on a great heape round or long, and flat on the top; and the thickneſſe of this heape shall bee answerable to the season of the yeare; for if the weather be extreame cold, then the heape shall be made very thicke, as three or foure foote, or more, according to the quantity of the graine: but if the weather bee temperate and warme, then shall the heape be made thinner, as two foote, a foote and a halfe, or one foote, according to the quantity of the graine; And this heape is called of Maltsters a Couch or bed of raw Malt.

In this couch you shall let the corne lie three nights more without stirring, and after the expiration of the three nights, you shall looke upon it, and if you finde that it beginneth but to sprout (which is called comming of Malt) though it be never so little, as but the very white end of the sproute peeping out (so it be in the outward part of the heape or couch) you shall then breake open the couch, and in the middeſt (where the Corne lay neereſt) you shall finde the sproute or Come of a greater largeneſſe; then with your shovell you shall turne all the outward part of the couch in-

ward, and the inward outward, & make it at least three or foure times as bigge as it was at the firſt, and ſo let it lie all that day and night, and the next day you ſhall with your ſhovell turne the whole heape over againe, increaſing the largeneſſe, and making it of one indifferent thickneſſe over all the floore, that is to ſay, not above a handfull thicke at the moſt, not failing after for the ſpace of fourteene daies, which doth make up full in all three weekes, to turne it all over twice or thrice a day according to the ſeaſon of the weather, for if it be warme, the Malt muſt be turned oftner: if coole, then it may lie looſer, thicker, and longer together, and when the three weekes is fully accompliſht, then you ſhall (having bedded your Kilne, and ſpread a cleane haire cloth thereon) lay the Malt as thinne as may be (as about three fingers thickneſſe) upon the haire-cloth, and ſo drie it with a gentle and ſoft fire, ever and anon turning the Malt (as it drieth on the Kilne) over and over with your hand, till you finde it ſufficiently well dryed, which you ſhall know both by the taſte when you bite it in your mouth, and alſo by the falling off of the Come or ſprout, when it is throughly dryed. Now aſſoone as you ſee the Come begins to ſhed, you ſhall in the turning of the Malt rubbe it well betweene your hands, and ſcowre it, to make the Come fall away, then finding it all ſufficiently dried, firſt put out your fire, then let the Malt coole upon the Kilne for foure or five houres, and after raiſing up the foure corners of the haire-cloth, and gathering the Malt together on a heape, empty it with the Come and all into your garners, and there let it lie (if you have not preſent occaſion to uſe it) for a moneth or two or three to ripen, but no longer, for as the

The drying of Malt.

come or dust of the Kilne, for such a space mellowech and ripeneth the Malt, making it better both for sale or expence, so to lie too long in it doth ingender Weevell, Wormes, and vermine which doe destroy the graine.

Now for the dressing and cleansing of Malt at such time as it is either to be spent in the house, or sold in the Market; you shall first winnow it with a good wind either from the aire, or from the fan; and before the winnowing, you shall rub it exceeding well betweene your hands, to get the come or sproutings cleane away: for the beauty and goodnesse of Malt is when it is most smug, cleane, bright, and likest to Barley in the view, for then there is least waste and greatest profit: for come and dust drinketh up the liquor, and gives an ill taste to the drinke. After it is well rubb'd and winnowed, you shall then ree it over in a fine Sive, and if any of the Malt be uncleansed, then rub it againe in the Sive till it be pure, and the rubbings will arise on the top of the Sive, which you may cast off at pleasure, and both those rubbings from the Sive and the chaffe and dust which commeth from the winnowings should be safe kept, for they are very good Swines meate, and feede well mixt either with whey or swillings: and thus after the Malt is reed, you shall either sacke it up for especiall use, or put it into a well-cleansed Garner, where it may lie till there be occasion for expence. The dressing of Malt.

Now there be certaine observations in the making of Malt, which I may by no meanes omit: for though divers opinions doe diversly argue them, yet as neere as I can, I will reconcile them to that truth, which is most consonant to reason, and the rule of honesty and equality. Observations in the making of Malt.

First, there is a difference in mens opinions touching the constant time for the mellowing and making of the Malt; that is, from the first steeping untill the time of drying; for some will allow both Fat and Flowre hardly a fortnight, some a fortnight and two or three daies, and doe give this reason; first, that Fat doth make the corne looke whiter and brighter, and doth take away so much the fulling and fouleasse of the Flowre, as that which lieth three weekes, which makes it a great deale more beautifull, and so more saleable: next, it doth not come or shoote out so much sprout, as that which lieth a longer time, and so preserveth more heart in the graine, makes it bold and fuller, and so consequently more full of substance, and able to make more of a little, than the other much of more, and these reasons are good in shew, but not in substantiall truth: for (although I confesse that Corne which lieth least time of the flowre must be the whitest and brightest) yet that which wanteth any of the due time, can neither ripen, mellow, nor come to true perfection, and lesse than three weekes cannot ripen barley: for looke what time it hath to swell and sprout, it must have full that time to flourish, and as much time to decay: now in lesse than a weeke it cannot doe the first, and so in a weeke the second, and in another weeke the third; so that in lesse than three weekes a man can not make perfect Malt. Againe, I confesse, that Malt which hath the least Come, must have the greatest kernell, and so be most substantiall; yet the Malt which putteth not out his full sprout, but hath that moisture (with too much haste) driven in which should be expelled, can never be Malt of any long lasting, or profitable for indurance, because it hath so much moist substance

stance as doth make it both apt to corrupt and breed wormes in most great abundance: it is most true, that this hasty made Malt is faire to the eye, and will soone off be vented in the Market; and being spent assoone as it is bought, little or no losse is to be perceived, yet if it be kept three or foure moneths, or longer (unlesse the place where it is kept, be like a hot House) it will so shake and give againe, that it will be little better than raw Malt, and so good for no service without a second drying: besides, Malt that is not suffered to sprout to the full kindly, but, as soone as it begins to peepe, much of that Malt cannot come at all, for the moistest graines doe sprout first, and the hardest are longer in breaking the huske; now, if you stop the graine on the first sprouts, and not give all leisure to come one after another, you shall have halfe Malt, and halfe Barley, and that is good for nothing but Hens and hogs trough. So that to conclude, leese than three weekes you cannot have to make good and perfect Malt.

Next, there is a difference in the turning of the Malt, for some (and those be the most men-Maisters whatsoever) turne all their Malt with the shovell, and say it is most easie, most speedy, and dispatcheth more in an houre, than any other way doth in three; and it is very true, yet it scattereth much, leaveth much behind unturn'd, and commonly that which was undermost, it leaveth undermost still, and so by some comming too much, and others not comming at all, the Male is oft much imperfect, and the old saying made good, that too much haste maketh waste. Now, there are others (and they are for the most part women-maisters) which turne all with the hand, and that is the best, safest, and most certaine way; for there is not a graine which the

hand

hand doth not remove and turne over and over, and laies every severall heape or row of such an even and just thicknesse, that the Malt both equally commeth, and equally seasoneth together without defect or alteration: and though he that hath much Malt to make, will be willing to harken to the swiftest course in making, yet he that will make the best Malt, must take such convenient leisure, and imploy that labor which commeth neerest to perfection.

Then there is another especiall care to be had in the coming or sprouting of Malt, which is, that as it must not come too little, so it must not by any meanes come too much, for that is the grossest abuse that may be: and that which wee call comed or sprouted too much, is, when either by negligence, for want of looking to the couch, and not opening of it, or for want of turning when the Malt is spread on the floore, it come or sprout at both ends, which *Husbands* call Akerspierd; such corne by reason the whole heart or substance is driven out of it, can be good for no purpose but the Swine-trough, and therefore you must have an especiall care both to the well tending of the couch, and the turning the Malt on the floore, and be sure (as neere as you can by the ordering of the couch, and lapping the hardest graine inward and warmest) to make it all come very indifferently together. Now, it is so fall out, that you buy your Barley, and happen to light on mixt graine, some being old Corne, some new Corne, some of the heats of the stack, and some of the staddle, which is an ordinary deceit with *Husbandmen* in the Market, then you may be well assured, that this graine can never come or sprout equally together; for the new Corne will sprout before the old, and the staddle before the

in the heart of the ſtacke, by reaſon the one exceedeth the other in moiſtneſſe: therefore in this caſe you ſhall marke well which commeth firſt, which will bee ſtill in the heart of the Couch, and with your hand gather it by it ſelfe into a ſeparate place, and then heape the other together againe, & thus as it commeth and ſprouteth, ſo gather it from the heape with your hand, and ſpread it on the floore, and keepe the other ſtill in a thicke heape till all be ſprouted. Now laſtly obſerve, that if your Malt be hard to ſprout or Corne, and that the fault conſiſt more in the bitter coldneſſe of the ſeaſon, than any defect of the Corne, that then (beſides the thicke and cloſe making of the heape or couch) you faile not to cover it over with ſome thicke woollen clothes, as courſe Coverlids, or ſuch like ſtuffe, the warmth whereof will make it come preſently; which once perceived, then forthwith uncloth it, and order it as aforeſaid in all points. And thus much for the Art, order, skill and cunning belonging to the Malt-making.

Of Oate Malt.

Now as touching the making of Oates into Malt, which is a thing of generall uſe in many parts of this Kingdome where Barley is ſcarſe, as in *Cheſhire*, *Lancaſhire*, much of *Darbiſhire*, *Devonſhire*, *Cornewall*, and the like, the Art and skill is all one with that of Barley, nor is there any variation or change of worke, but one and the ſame order ſtill to be obſerved, onely by reaſon that Oates are more ſwift in ſprouting, and apter to clutter, ball and hang together by the length of the ſprout then Barley is, therefore you muſt not faile but turne them oftner than Barley, and in the turning be carefull to turne all, and not leave any unmoved. Laſtly, they will need leſſe of the floore than Barley will, for in a full fortnight, or a fortnight and two or three

three daies you may make very good and perfect Oates malt. But because I have a great deale more to the particularity of Oates in the next Chapter, I will here conclude this, and advise every skilfull *Housewife* to joyne with mine observations her owne tryed experience, and no doubt but she shall finde both profit and satisfaction.

Chap. 6.

Of the excellency of Oates, and the many singular vertues and uses of them for a family.

OAts although they are of all manner of graine the cheapest, because of their generality being a graine of that goodnesse and hardinesse, that it will grow in any soile whatsoever, be it never so rich, or never so poore, as if Nature had made it the onely loving companion and true friend to mankinde; yet it is a graine of that singularity for the multiplicity of vertues, and necessary uses for the sustenance and support of the Family, that not any other graine is to be compared with it, for if any other have equall vertue, yet it hath not equall value, and if equall value, then it wants many degrees of equall vertue; so that joyning vertue and value together, no *Husband*, *Housewife*, or Houſe-keeper whatsoever, hath so true and worthy a friend, as his Oates are.

Vertue of Oates to Cattell.

To speake then first of the vertues of Oates, as they accrew to cattell and creatures without doore, and first to begin with the Horse, there is not any food whatsoever that is so good, wholesome, and agreeable with the nature of a Horse, as Oates are, being a Provender in which he taketh such delight, that whilst he feedeth,

feedeth, travelleth, and doth any violent labour whatsoever with more courage and comfort, than with any other food that can be invented, as all men know, that have either use of it, or Horses: neither doth the Horse ever take surfeit of Oates, (if they be sweet and dry) for albeit he may well be glutted or stalled upon them (with indiscreet feeding) and so refuse them for a little time, yet hee never surfeiteth, or any present sickenesse follow after; whereas no other graine but gluts a Horse therewith, and instantly sicknesse will follow, which shewes surfeit, and the danger is oft incurable: for wee reade in *Italy*, at the siege of *Naples*, of many hundred horses that died on the surfeit of Wheat, at *Rome* also died many hundred horses of the Plague, which by due proofe was found to proceed from a surfeit, taken of Pease and Fitches; and so I could runne over all other graines, but it is needlesse, and farre from the purpose I have to handle: suffice it, Oats for Horses are the best of all foods whatsoever, whether they be but onely cleane threshed from the straw, and so dried, or converted to Oat-meale, and so ground, and made into bread, Oates boil'd and given to a Horse whileft they are coole and sweet, are an excellent food for any Horse in time of disease, poverty, or sickneſſe, for they scoure and fat exceedingly.

In the same nature that Oats are for Horses, so are they for the Asse, Mule, Camell, or any other Beast of burthen.

If you will feed either Oxe, Bull, Cow, or any Neate whatsoever, to an extraordinary heighth of fatnesse, there is no food doth it so soone as Oats doth, whether you give them in the straw, or cleane threshed from the straw, and well winnowed; but the winnowed Oate

is the best, for by them I have seen an Oxe fed in twen-
tie pounds, to twentie foure pounds, and thirty pounds,
which is a most unreasonable reckoning for any beast,
onely fame and tallow hath beene precious.

Sheepe or Goats may likewise be fed with Oats, to
as great price and profit, as with Pease, and Swine are
fed with Oates, either in raw Malt, or otherwise, to a
great thickenesse as with any graine whatsoever; only
they must have a few Pease after the Oates, to harden
the fat, or else it will waste, and consume in boiling.
Now for holding Swine, which are onely to be preser-
ved in good flesh, nothing is better than a thin mange
made of ground Oates, Whey, Butter-milke, or other
ordinary wash, or swillings, which either the Dairy or
Kitchin affordeth; nor is there any more soveraigne
or excellent meate for Swine in the time of sickenesse,
than a mange made of ground Oates and sweet Whey,
warmed luke-warme on the fire, and mixed with the
powder of Raddle, or red Oaker. Nay, if you will goe
to the matter of pleasure, there is not any meate so ex-
cellent for the feeding, and wholesome keeping of a
Kennell of hounds, as the mange made of ground Oats
and scalding-water, or of Beefe-broth, or any other
broth, in which flesh hath beene sodden; if it be for
the feeding, strengthening and comforting of Grey-
hounds, Spaniels, or any other sort of tenderer dogges,
there is no better meat than Sheepes-heads, haire and
all, or other intralls of sheepe, chopt and well sodden
with good store of Oat-meale.

Now, for all manner of Poultry, as Cockes, Capons,
Hens, Chickens of great size, Turkyes, Geese, Ducks,
Swans, and such like, there is no food feedeth them
better than Oates, and if it be the young breed of any

of

of those kindes, even from the first hatching or disclosing, till they be able to shift for themselves, there is no food better whatsoever than Oat-meale greets, or fine Oat-meale, either simple of it selfe, or else mixt with milke, drinke, or else new made Vrine.

Thus much touching the vertues and quality of Oats or Oat-meale, as they are serviceable for the use of Cattle and Poultry. Now for the most necessary use thereof for man, and the generall support of the family, there is no graine in our knowledge answerable unto it; first for the simple Oate it selfe (excepting some particular physicke helpes, as frying them with sweet Butter and putting them in a bagge, and very hot applied to the belly or stomacke to avoid collicke or windinesse, and such like experiments) the most especiall use which is made of them, is for Malt to make Beere or Ale of, which it doth exceeding well, and maintaineth many Townes and Countries; but the Oat-meale which is drawne from them, being the heart and kernell of the Oate, is a thing of much rarer price and estimation; for to speake troth, it is like Salt of such a generall use, that without it hardly can any Family be maintained: therefore I thinke it not much amisse to speake a word or two touching the making of Oate-meale: you shall understand then, that to make good and perefect Oat-meale, you shall first dry your Oates exceeding well, and then put them on the Mill, which may either be Water-mill, Wind-mill, or Horse-mill, (but the Hose-mill is best) and no more but crush or hull them; that is, to carry the stones so large, that they may no more but crush the huske from the kernell: then you shall winnow the huls from the kernels either with the wind or a Fanne, and finding them of an indifferent

Vertue of Oats for man.

Making Oat-meale.

cleannesse

cleanneſſe (for it is impoſſible to hull them all cleane at the firſt) you ſhall then put them on againe, and making the Mill goe a little cloſer, runne them through the Mill againe, and then winnow them over againe, and ſuch greetes or kirnels as are cleane hull'd and well cut you may lay by, and the reſt you ſhall run through the mill againe the third time, and ſo winnow them againe, in which time all will bee perfect, and the greetes or full kirnels will ſeparate from the fmaller Oate-meale; for you ſhall underſtand, that at this firſt making of Oate-meale, you ſhall ever have two ſorts of Oate-meales; that is, the full whole greete or kernell, and the ſmall duſt Oate-meale: as for the courſe hulles or chaffe that commeth from them, that alſo is worthy ſaving, for it is an excellent good Horſe-provender for any plow or labouring Horſes, being mixt with either Beanes, Peaſe, or any other Pulſe whatſoever.

The vertue of Oate-meale.

Now for the uſe and vertues of theſe two ſeverall kinds of Oate-meales in maintaining the Family, they are ſo many (according to the many cuſtomes of many Nations) that it is almoſt impoſſible to recken all, yet (as neere as I can) I will impart my Knowledge and what I have tane from relation: Firſt, for the ſmall duſt, or meale Oat-meale, it is that with which all pottage is made and thickned, whether they bee meate pottage, milke-pottage, or any thicke, or elſe thinne grewell whatſoever, of whoſe goodneſſe and wholſomeneſſe it is needleſſe to ſpeake, in that it is ſo frequent with every experience, alſo with this ſmall meale Oate-meale is made in divers Countries ſix ſeverall kinds of very good and wholſome bread, every one finer than other, as your Anacks, Iannicks, and ſuch like. Alſo

is made of it both thicke and thin Oaten-cakes, which are very pleasant in taste, and much esteemed: but if it be mixed with fine wheat-meale, then it maketh a most delicate and dainty oate-cake, either thick or thin, such as no Prince in the world but may have them served to his table; also this small oat-meale mixed with blond, and the Liver of either Sheepe, Calfe, or Swine, maketh that pudding which is called the Haggas or Haggus, of whose goodnesse it is in vaine to boast, because there is hardly to bee found a man that doth not affect them. And lastly, from this small oat-meale by ofs steeping it in water, and cleansing it, and then boyling it to a thicke & stiffe ielly, is made that excellent dish of meat, which is so esteemed of in the west parts of this Kingdome, which they call *Wash-brew*, and in *Cheshire*, and *Lancashire* they call it *Flawery* or *Flummery*, the wholesomenesse and rare goodnesse, nay, the very Physicke helpes thereof, being such and so many, that I my selfe have heard a very reverend, and worthily renowned Physician speake more in the commendations of that meate, than of any other food whatsoever: and certaine it is, that you shall not heare of any that ever did surfeit of this *Washbrew* or *Flummery*, and yet I have seene them of very dainty and sickely stomaches which have eaten great quantities thereof, beyond the proportion of ordinary meates. Now for the manner of eating of this meate, it is of divers diversly used; for some eate it with honey, which is reputed the best sauce, some with Wine, either Sacke, Claret, or White, some strong Beere, or strong Ale, and some with milke, as your ability, or the accommodations of the place will administer. Now there is derived from this *Wash-brew* another courser meate, which is as it were the dregs, or

grosser substance of the *Wash-brew*, which is called *Clap-brew*, which is a well filling, and sufficient meare, fit for servants and men of labour; of the commendations whereof, I will not much stand, in that it is a meate of harder digestion, and fit indeed, but for strong stomackes, and such whose toyle and much sweat, both liberally spendeth much humours, and also preserveth men from the offence of fulnesse and surfets.

Now for the bigger kinde of Oate-meale, which is called Greets, or Corne Oate-meale, it is of no lesse use than the former, nor are their fewer meates compounded thereof: for first, of these greetes are made all sorts of puddings, or pots (as the West-country termes them) whether they be blacke, as those which are made of the bloud of Beasts, Swine, Sheepe, Geese, Red or Fallow Deere, or the like, mixt with whole greets, fat and wholesome hearbes: or else white, as when the greetes are mixed with good creame, egges, bread-crummes, suet, currants, and other wholesome spices. Also of these greets are made the good Fryday pudding, which is mixt with egges, milke, suet, peni-royall and boyld first in a linnen bagge, and then stript and butterd with sweet butter. Againe, if you rosse a goose, and stop her belly with whole greets beaten together with egges, and after mixt with gravy, there cannot be a better or more pleasant sauce: nay, if a man bee at sea in any long travell, hee cannot eate a more wholesome and pleasant meat, than these whole greets boyld in water till they burst, and then mixt with butter, and so eaten with spoones; which although fat men call simply by the name of Lob-lolly, yet there is not any meat, how significant soever the name be, that is more toothsome or wholesome. And to conclude, there

is no way or purpose whatsoever, to which a man can use or imploy Rice: but with the same seasoning and order, you may imploy the whole greetes of Oatemeal, and have full as good and wholesome meate, and as well tasted; so that I may well knit up this chapter with this approbation of Oate-meale, that the little charge and great benefit considered, it is the Crowne of the *House-wives* garland, and doth more grace her table and her knowledge, than all graines whatsoever; neither indeed, can any Family or House-hold be well and thriftily maintained, where this is either scant or wanting. And thus much touching the nature, worth, vertues, and great necessity of Oates and Oate-meale.

Chap. 8.

Of the Office of the Brew-house, and the Bake-house, and the necessary things belonging to the same.

WHen our *English House-wife* knowes how to preserve health by wholesome Physicke, to nourish by good meate, and to cloath the body with warme garments, she must not then by any meanes be ignorant in the provision of Bread and Drinke; she must know both the proportions and compositions of the same. And for as much as drinke is in every house more generally spent than bread, being indeed (but how well I know not) made the very substance of all entertainement; I will first beginne with it, and therefore you shall know that generally our Kingdome hath our two kindes of drinke, that is to say, Beere and Ale, Diversities of Drinkes.

Ale, but particularly foure, as Beere, Ale, Perry and Cider; and to these we may adde two more, Meede and Metheglin, two compound drinkes of hony and herbs, which in the places where they are made, as in *Wales* and the marches, are reckoned for exceeding wholesome and cordiall.

Strong Beere.

To speake then of Beere, although there bee diuers kinds of tastes and strength thereof, according to the allowance of *Malt*, *Hoppes*, and age given unto the same; yet indeed there can be truly said to be but two kindes thereof; namely, ordinary beere, and March beere, all other beeres being derived from them.

Of ordinary Beere.

Touching ordinary Beere, which is that wherewith either Nobleman, Gentleman, Yeoman, or Husbandman shall maintaine his family the whole yeare; it is meete, first, that our *English Housewife* respect the proportion or allowance of Malt due to the same, which amongst the best *Husbands* is thought most conuenient, and it is held, that to draw from one quarter of good Malt three Hogsheads of beere, is the best ordinary proportion that can be allowed, and having sure and good caske to lie in, it will bee strong enough for any good mans drinking.

Of brewing ordinary Beere.

Now for the brewing of ordinary Beere, your Malt being well ground and put in your Mash-fat, and your liquor in your leade ready to boyle, you shall then by little and little with scoopes or pailes put the boyling liquor to the Malt, and then stirre it euen to the bottome exceedingly well together (which is called the mashing of the Malt) then the liquor swimming in the top cover all ouer with more Malts land so let it stand an houre and more in the mash-fat, during which space you may if you please heate more liquor in

in your lead for your second or small drinke, this done, plucke up your mashing stroame, and let the first liquor runne gently from the Malt, either in a cleane trough, or other vessells prepared for the purpose, and then stopping the Mash-fat againe, put the second liquor to the Malt, and stirre it well together; then your Leade being emptied, put your first liquor or wort therein, and then to every quarter of Malt, put a pound and a halfe of the best Hops you can get; and boile them an houre together, till taking up a dishfull thereof, you see the Hops shrinke into the bottome of the dish; this done, put the wort thorow a strait Sive which may draine the Hops from it into your cooler, which standing over the Guile-fat, you shall in the bottome thereof, set a great bowle with your barme, and some of the first wort (before the Hops come into it mixt together) that it may rise therein, and then let your wort drop or runne gently into the dish with the barme which stands in the Guile-fat, and this you shall doe the first day of your brewing, letting your cooler drop all the night following, and some part of the next morning, and as it drops, if you find, that a blacke skum or mother riseth upon the Barme, you shall with your hand, take it off, and cast it away, then nothing being left in the cooler, and the Beere well risen, with your hand stir it about, and so let it stand an houre after, and then beating it & the Barme exceeding well together, run it up into the Hogsheads, being cleane wash'd and scalded, and so let it purge: and herein you shall observe not to run your vessels too full, for feare thereby it purge too much of the Barme away: when it hath purged a day & a night, you shall close up the bung-holes with clay, and onely for a day or two after keepe a vent-hole in it, and after close it up as close as

as may be. Now for your second, or small drinke which are left upon the graine, you shall suffer it there to stay but an houre, or a little better, and then draine it off also, which done, put it into the Lead with the former Hops, and boile the other also, then cleere it from the Hops, and cover it very close, till your first Beere be tunned, and then as before, put it also to Barme, and so tun it up also in smaller vessels, and of this second Beere you shall not draw above one Hogshead to three of the better. Now there be divers other waies and observations for the brewing of ordinary Beere, but none so good, so easie, so ready and quickly performed, as this before shewed; neither will any Beere last longer, or ripen sooner, for it may be drunke at a fortnights age, and will last as long and lively.

Of brewing the best March Beere.

Now for the brewing of the best March-beere, you shall allow to a Hogshead thereof, a quarter of the best Malt, well ground; then you shall take a pecke of Pease, halfe a pecke of Wheate, and halfe a pecke of Oates, and grind them all very well together, and then mixe them with your Malt; which done, you shall in all points brew this Beere as you did the former ordinary Beere; only you shall allow a pound and a halfe of Hops to this one Hogshead: and whereas before you drew but two sorts of Beere: so now you shall draw three; that is, a Hogshead of the best, and a Hogshead of the second, and halfe a Hogshead of small Beere, without any augmentation of Hops or Malt.

This March-beere would be brewed in the moneths of *March* or *April*, and should (if it have right) have a whole yeere to ripen in: it will last two, three and foure yeeres, if it lie coole and close, and endure the drawing to the last drop, though with never so much leisure.

Now

Now for the brewing of ſtrong Ale, becauſe it is drinke of no ſuch long laſting as Beere is, therefore you ſhall brew leſſe quantity at a time thereof, as two buſhels of Northerne meaſure (which is foure buſhels, or halfe a quarter in the South) at a brewing, and not above, which will make foureteene gallons of the beſt Ale. Now for the maſhing and ordering of it in the maſh-fat, it will not differ any thing from that of Beere; as for Hops, although ſome uſe not to put in any, yet the beſt Brewers thereof will allow to foureteene gallons of Ale a good eſpen full of Hops, and no more, yet before you put in your Hops, as ſoone as you take it from the graines, you ſhall put it into a veſſell, and change it, or blinke it in this manner: put into the wort a handfull of Oke-bowes, and a pewter-diſh, and let them lie therein till the wort looke a little paler than it did at the firſt, and then preſently take out the diſh and the leafe, and then boile it a full houre with the Hops, as aforeſaid, and then cleanſe it, and ſet it in veſſells to coole; when it is milke-warme, having ſet your Barme to riſe with ſome ſweete wort: then put all into the Guilefat, and as ſoone as it riſeth, with a diſh or bowle beat it in, and ſo keepe it with continuall beating a day and a night at leaſt, and after tun it. From this Ale, you may alſo draw halfe ſo much very good middle Ale, and a third part very good ſmall Ale. Brewing of ſtrong Ale.

Touching the brewing of Bottle-ale, it differeth nothing at all from the brewing of ſtrong Ale, onely it muſt be drawne in a larger proportion, as at leaſt twenty gallons of halfe a quarter; and when it comes to be changed, you ſhall blinke it (as was before ſhewed) more by much than was the ſtrong Ale, for it muſt be pretty and ſharpe, which giveth the life and quick- Brewing of bottle Ale.

neſſe

neſſe to the Ale: and when you tunne it, you ſhall put it into round bottles with narrow mouthes, and then ſtopping them cloſe with corke, ſet them in a cold cellar up to the waſt in ſand, and be ſure that the corkes be faſt tied in with ſtrong packe-thread, for feare of riſing out, or taking vent, which is the utter ſpoile of the Ale.

Now for the ſmall drinke ariſing from this Bottle-ale, or any other Beere or Ale whatſoever, if you keepe it after it is blinck'd and boiled in a cloſe veſſell, and then put it to Barme every morning as you have occaſion to uſe it, the drinke will drinke a great deale the freſher, and be much more lively in taſte.

Of making Perry or Cider.

As for the making of Perry and Cider, which are drinkes much uſed in the Weſt parts, and other Countries well ſtored with fruit in this Kingdome; you ſhall know that your Perry is made of Peares onely, and your Cider of Apples; and for the manner of making thereof, it is done after one faſhion, that is to ſay, after your Peares and Apples are well pick'd from the ſtalks, rottennеſſe, and all manner of other filth, you ſhall put them in the preſſe-mill, which is made with a mil-ſtone running round in a circle, under which you ſhall crush your Peares or Apples, and then ſtraining them thorow a bagge of haire cloth, tun up the ſame (after it hath beene a little fetled) into Hogſheads, Barrells and other cloſe veſſels.

Now after you have preſt all, you ſhall ſave that which is within the haire-cloth bag, and putting it into ſeverall veſſels, put a pretty quantity of water thereunto, and after it hath ſtood a day or two, and hath beene well ſtirred together, preſſe it over alſo againe, for this will make a ſmall Perry or Cider, and muſt be ſpent

ſpent firſt. Now of your beſt ſider, that which you make of your ſummer or ſweet fruit, you ſhall call ſummer or ſweet cider or perry, and that you ſhall ſpend firſt alſo; and that which you make of the winter and hard fruit, you ſhall call winter and ſoure cider, or perry; and that you may ſpend laſt, for it will indure the longeſt.

Of Baking.

Thus after our *Engliſh Houſe-wife* is experienc't in the brewing of theſe ſeverall drinkes, ſhee ſhall then looke into her Bake-houſe, and to the making of all ſorts of bread, either for Maſters, ſervants, or hindes, and to the ordering and compounding of the meale for each ſeveralluſe.

Ordering of Meale.

To ſpeake then firſt of meales for bread, they are either ſimple or compound; ſimple, as Wheat and Rye, or compound, as Rye and Wheat mixt together, or Rye, Wheate and Barley mixt together; and of theſe the oldeſt meale is ever the beſt, and yeeldeth moſt, ſo it be ſweet and untainted for the preſervation whereof, it is meet that you cleanſe your meale well from the bran, and then keepe it in ſweet veſſels.

Baking Manchets.

Now for the baking of bread of your ſimple meales, your beſt and principall bread is manchet, which you ſhall bake in this manner: Firſt your meale being ground upon the blacke ſtones, if it bee poſſible, which make the whiteſt flower, and bolted through the fineſt boulting cloth, you ſhall put it into a cleane Kimnell, and opening the flower hallow in the midſt, put into it of the beſt Ale barme, the quantity of three pints to a buſhell of meale, with ſome ſalt to ſeaſon it with: then put in your liquor reaſonable warme and knead it very well together with both your hands and through the brake, or for want thereof, fold it in a cloth, and with

your

your feet, tread it a good ſpace together, then leaving it lie an houre or thereabouts to ſwell, take it forth and mold it into manchets, round, and flat, ſcotch them about the waſte to give it leave to riſe, and pricke it with your knife in the top, and ſo put it into an Oven, and bake it with a gentle heate.

Baking cheate Bread.

To bake the beſt cheate bread, which is alſo ſimply of wheate onely, you ſhall after your meale is dreſt and boulted, through a more courſe boulter than was uſed for your manchets, and put alſo into a cleane tub, trough or kimnell, take a ſowre leaven, that is, a piece of ſuch like leaven ſaved from a former batch, and well ſild with ſalt, and ſo laid up to ſower, and the ſower leaven you ſhall breake into ſmall pieces into warme water, and then ſtraine it, which done, make a deepe hollow hole, as was before ſaid, in the midſt of your flower, and therein poure your ſtrained liquor, then with your hand mixe ſome part of the flower therwith, till the liquor be as thicke as pancake-batter, then cover it all over with meale, and ſo let it lie all that night, the next morning ſtirre it, and all the reſt of the meale well together, and with a little more warme water, barme, and ſalt to ſeaſon it with, bring it to a perfect leaven, ſtiffe, and firme; then knead it, breake it, and read it, as was before ſaid in the manchets, and ſo mold it up in reaſonable bigge loaves, and then bake it with an indifferent good heate: and thus according to theſe two examples before ſhewed, you may breake leavened or unleavened whatſoever, whether it be ſimple corne, as Wheate or Rie of it ſelfe, or compound graine, as Wheate and Rye, or Wheate and Barley, or Rie and Barley, or any other mixt white corne; onely becauſe Rie is a little ſtronger graine than Wheate, it ſhall bee

good

good for you, to put your water a little hotter than you did to your Wheate.

For your browne bread, or bread for your hinde- Baking of browne bread.
ſervants, which is the courſeſt bread for mans uſe, you ſhall take of barley two buſhels, of peaſe two peckes, of Wheate or Rie a pecke, a pecke of malt; theſe you ſhall grinde all together and dreſſe it through a meale ſine, then putting it into a ſower trough ſet liquor on the fire, and when it boyles let one put on the water, and another with a maſh rudder, ſtirre ſome of the flower with it, after it hath been ſeaſoned with ſalt, and ſo let it be till the next day, and then putting to the reſt of the flower, worke it up into ſtiffe leaven, then mold it, and bake it into great loaves, with a very ſtrong heat: now if your trough be not ſoure enough to ſower your leaven, then you ſhall either let it lie longer in the trough, or elſe take the helpe of a ſoure leaven with your boyling water: for you muſt underſtand, that the hotter your liquor is, the leſſe will the ſmell or rankneſſe of the peaſe be received. And thus much for the baking of any kinde of bread, which our *Engliſh Houſe-wife* ſhall have occaſion to uſe, for the maintenance of her family.

As for the generall obſervations to bee reſpected in Generall obſervations in the brew-houſe and bake houſe.
the Brew-houſe or Bake-houſe, they bee theſe: firſt, that your Brew-houſe be ſeated in ſo convenient a part of the houſe, that the ſmoke may not annoy your other more private roomes; then that your furnace bee made cloſe and hollow for ſaving fewell, and with a vent for the paſſage of ſmoake, leſt it taint your liquor; then that you preferre a copper before a leade, next that your Maſh-fat bee ever neereſt to your leade, your cooler neereſt your Maſh-fat, and your Gul-fat under

your feet, tread it a good ſpace together, then letting it lie an houre or thereabouts to ſwell, take it forth and mold it into manchets, round, and flat, ſcotch them about the waſte to give it leave to riſe, and pricke it with your knife in the top, and ſo put it into an Oven, and bake it with a gentle heate.

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under

under your cooler, and adioyning to them all severall cleane tubs to receive your worts and liquors: then in your Bake-house you shall have a faire bolting house with large pipes to boult meale in, faire troughes to lay leaven in, and sweet safes to receive your bran: you shall have boulters, searses, raunges and meale sives of all sorts, both fine and course; you shall have faire tables to mould on, large ones to brake in the soales thereof, rather of one or two intire stones than of many bricks, and the mouth made narrow, square, and easie to bee close covered: as for your peeles, cole-rakes, manking, and such like, though they be necessary, yet they are of such generall use, they neede no further relation. And thus much for a full satisfaction to all the *Husbands* and *Housewives* of this Kingdome touching Brewing, Baking, and whatsoever else appertaineth to either of their offices.

The end of the English House-wife.

FINIS.

BRITISH MUSEUM

THE INRICHMENT of the VVeald of Kent:

OR,

A Direction to the Husband-man, for the true ordering, manuring, and inriching of all the Grounds within the Wealds of *Kent* and *Sussex*, and may generally serue for all the Grounds in *England*, of that nature: As,

1. *Shewing the nature of all Wealdish grounds, comparing it with the soile of the Shires at large.*
2. *Declaring what the Marle is, and the seuerall sorts thereof, and where it is vsually found.*
3. *The profitable vse of Marle, and other rich manurings, as well in each sort of arable land, as also for the increase of Corne and Pasture through the Kingdome.*

Painfully gathered for the good of this Iland, by a man of great eminence and worth, but reuised, inlarged, and corrected with the consent, and by conference with the first Author. By *Gervase Markham.*

LONDON,
Printed by *Anne Griffin* for IOHN HARISON, at the golden Unicorne in Pater-noster row. 1636.

THE INDICTMENT
of the Weald of Kent:
OR,
A Direction to the Husbandmen, &c.
the true ordering, manuring, and inclosing
of all the Grounds within the Weald of
Kent and Sussex, as are generally
known for all the Counties in England
of that nature: As,

1. Shewing the nature of all Woodlands grounds, comprising Parks, Inclosures, the Shire at large.
2. Declaring what the Advice, and the Counsel first thereof, and where it first began.
3. The profitable use of Marle, and other Manurings, as well such first of our Land, as also for the more fertile Countries throughout the Kingdom.

Painfully gathered for the good of this Land, by a man of great sincerence and worth, but revised, inlarged and corrected with the content, and by consference with the first Author. By [illegible] Gent.

LONDON,
Printed by J. G. for IOHN HARISON, at the
golden Unicorne in Pater-noller row. 1652.

TO

THE HONOVRABLE

Knight, Sir GEORGE RIVERS of CHAFFORD, in the County of KENT.

SIR:

Had I no ſcale (more than this bare and plaine moulded Epiſtle (by which to come to your worthy eares, yet in reſpect of the honeſt Liverie which it carries (being neceſſary and bunbundle collections, eſpecially gathered for the Countrey and Soile wherein you live) I know it cannot chuſe but finde both favour and mercy in your acceptation: but when I call up into my conſideration, the great worthineſſe of your experience in this and all other the like affaires, which tend to the generall benefit of the Common-wealth, and weigh the excellencie of your wiſedome, judgement, bounty, and affection unto hoſpitality (which give both ſtrength and advancement to

projects of this nature) I could not but take unto my selfe a double encouragement, and boldly [illegible] worke which I offer to your [illegible], God and approach with all [illegible] perfectly knowes all which thou canst or wouldst discover; he that is able both to correct and amend any thing that is imperfect in thee, bee, for vertues sake, will never forsake thee. Beleeve mee (worthy Sir) should this subject with it self a Patron, I do not think it could wish beyond you; for you are a volume full of all that of which it intreateth: witnesse your yeares, your place, your supportation of the poore, and your continuall imployments; with any of which there is not (of your ranke) a second living in your Countrey, to walk hand in hand with you. Being then (deare Sir) the eldest and best friend to your country, forsake neither her, nor this which comes to serve it; and though in this Glasse some lineaments may appeare imperfect, yet by the helpe of your [illegible] (though little bee exact or most excellent) nothing shall be grosse or unworthie the fair view of your [illegible] patience. And so I rest,

Yours to be commanded,

Gervase Markham.

A discourse of the Weald of Kent; *and a comparison of the arable Lands therein, with the other parts of the Shires. Together with some necessary counsels for the ordering and inriching of the marleable Lands in the Weald, or generally in any part of this Kingdome.*

THe Weald of *Kent* is the lower part of that Shire, lying on the South side thereof, and wards adjoyneth to the Weald of *Sussex*, to the West. Further additions.

This Weald both in *Kent* and *Sussex*, was sometimes all (or the most part) woody, wilde, and (in the first times) uninhabited; and from thence tooke the name of Weald from the *Saxon* word, *Weale*, or *Teale*, or *Weald*, which signifieth a woody countrey, or Forrest-like ground. The *Britans* called it *Andred*, which signifieth Greatnesse or Wonderfull, and in Latine it was called *Saltus Andred*, (that is to say) the Chase or Forrest of *Andred*, by reason of the great circuit, or large bounds thereof.

Touching the true boundary or limits of this Weald, there have bin divers opinions, and most of them various, and much differing both in place and quantity; but that which is the neerest and best allied unto truth, both according to the opinions of *Asserius Menevensis*, *Henry* of *Huntingdon*, & others of most credible report, is; that it extendeth from the city of *Winchelsey* in *Sussex*, an hun-

dred and twentie miles in length towards the west; and 30 miles in breadth towards the north. Now, although this report bee most agreeing unto veritie, yet who knows not that curiosity may raise up many objections to withstand it; & therfore M. *Lambert* in his Perambulation of Kent, hath prescribed the best & most infallible way to find out the true & certain bounds of this weald, to be onely by Iewrie, or the verdict of 12 men impannelled for that purpose; either in case of controversie, or other particular search; and this hath bin in these latter times brought forth most plentifully, for it hath beene found by divers late verdicts, upon special and most necessarie occasions, that the Weald of Kent is truly M. *Lamberts* second step in his Perambulation of Kent, reaching from *Winchelsey* in *Sussex*, and that hill there, unto the top of *Rivers* hill in Kent; and neither farther towards *London*, nor shorter towards *Tunbridge*; which agreeth so perfectly with the former limitations, that both may be received as most true and sufficient.

This Weald was for many yeares held to be a wilde Desert, or most unfruitfull Wildernesse (as write the authors before mentioned) & indeed such is the nature and disposition of the soile thereof to this very day: for it will grow to frith or wood, if it be not continually manured and laboured with the plough, and kept under by tillage, so as it may truly be said of it, *Incultæ parantur vomere Sylvæ*. It is throughout (except in very few places adjoining to brooks or rivers) of a very barren nature, & unapt either for pasturage or tillage, untill that it be holpen by some maner of comfort, as dung, marle, fresh earth, fodder, ashes, or such other refreshings; and that seemeth to have beene the cause for which in old time it was used as a Wildernesse, and kept for the most

part

part with herds of Deere, and droves of Hogs, as is ſpecified in divers hiſtoricall relations.

And as there be yet remaining in *Suſſex* divers great forreſts, and ſundry commons or waſtes, having five or ſix miles in length, which for the moſt part are not fit to be manured for corne, and yeeld but little profit in paſture; ſo have there been alſo in *Kent* (within our memory) a great number of woody and over-grown grounds, converted of late to paſture & tillage, even after ſuch a manner as in the ſaid Perambulation is reſtified, where it is ſaid, that although the weald of *Kent* belonged to ſundry known owners long ſince, yet was it not then allorted into particular Tenancies, as the other parts of the ſhire were, but it was, in proceſſe of time, by little and little gained, as men were contented to inhabit there, & to rid it of the wood; And hereof it is alſo, that beſides ſundry whole pariſhes which be named dens or low places, as *Tenderden*, *Marden*, *Beneden*, and ſundry others, there be moreover many ſmaller portions, almoſt in every part of the weald of Kent, which be likewiſe called dens, as the den of *Cranbrooke* in *Cranebrooke*; the den of *Hawkehurſt* in *Hawkehurſt*, and ſuch others; the which (as it ſeemeth) were at the firſt undertaken to be manured by ſundry particular perſons, whoſe names were then taken for thoſe very dennes, and continued many yeares together, as by ancient evidences it doth yet appeare, howſoever the age of long time hath now almoſt worn & conſumed them all out of knowledge. Neither doth the weald of Kent containe ſo many great manors or courts (for the proportion of the largeneſſe) as the reſt of the ſhire doth, but was appertaining, for a great part thereof, to ſundry of thoſe mannors which do lye at large diſperſed thorow the ſhire, whereof each one

had a great portion in the Weald, which both in the booke of Doomſ-day, and in ſundry the court rols, and rentals, paſſeth by the name of Weald, and *Silua Porcorum*, or ſwine gats, which were granted to divers of the farmers & owners of ſundry tenãcies, which did belong unto thoſe dennes, and other lands within the Weald.

And albeit theſe dens be for the moſt part good large portions of lands, that be now broken into many ſeveral poſſeſſions, ſo as the ſame one Den ſufficeth 20. houſholders at this day, yet is it very likely that each man at the firſt had his ſeveral den wholy & unbroken, whereof he & his poſterity beareth name, untill that the ſame was by the cuſtome of *Gavilkind*, by ſale or by exchange divided & diſtributed amongſt others into parts, as we doe now ſee them. But howſoever this Weald be of it ſelfe unfruitfull (as I ſaid) & of a barren nature, yet ſo it hath pleaſed the providence of the Almighty to temper the ſame, that by the benefit of Margle or Marle (as it is commonly called) it may be made not onely equall in fertilitie with the other grounds of the ſhire, as well for corne as graſſe, but alſo ſuperior to the more and greater part of the ſame. The which manner of bettering the groũd is not now newly diſcovered, but was the ancient practice of our fore-fathers many yeares agoe, as by the innumerable Marle-pits digged & ſpent ſo many years paſt, that trees of 200 or 300 yeares old, doe now grow upon them, it may moſt evidently appeare, beſides the which we have mention of Marle in books of gainage or husbandry, that were written in the daies of K. *Edward* the 2. or before, howbeit the ſame manner of tillage, by meanes of the civill warres, maintained many yeares as well in the time of the Barons warres, as of the wars betweene the houſe of *Yorke*, and the family of *Lancaſter*, was

The uſe of marle is ancient.

Marling was diſcontinued, and is now revived.

was so given over, and gone out of use, untill these 30. or 40. yeares, that it may be said to have been then newly borne and revived, rather then restored, because the very true art of inriching the ground by *Marle*, seemeth to lie hidden in part, as yet not to be discovered to the full: for in this short time we have seen many arable grounds which for sundry yeeres after the marling of them, have plentifully borne Wheat and other Graine, to be now become unfruitfull, & so will they continue, albeit they should bee now marled againe. And this commeth to passe by the ignorance of the right manner of ordering the *Marle*, which is as strong & chearefull as ever it was before, howsoever it worketh not his naturall effect, through the unskilfulnes of the Husbandman, that both wasteth the *Marle*, and loseth withall his time, his labour, his cost, and the profit of his ground. I cannot deny but a man shall see some grounds, of nature fit to take *Marle*, and of situation so neere to *Marle*-pits long time opened, that they might be marled plentifully with little charge; and have been heretofore marled indeed, & yet the same to lie now unploughed, and not onely barren of themselves, but also unapt for *Marle*, and uncapable of amendment by Tillage: but, I must say withall, that albeit the men in those former ages had the right ordering of *Marle*, yet were not they all good Husbands alike, neither doth the Field joy alike under the Farmer, and under the very Owner of the same, the one seeking the very uttermost gaine that may be made during his short interest, & the other indeavouring to perpetuate his commodity, even to the end of his estate, which hath no end at all, so that through unskilfulnes of the one, and greedines in others, the ground may sooner be crämed to death with *marle*, then it shall be made the better or

fatter by it. The reaſon whereof I will reſerve, vntill that I haue cauſe to teach in particular, after what manner and meaſure the ground is to bee marled. In the meane-while, I will open the nature and conditions of this wealdiſh ground, comparing it with the Soyle of the ſhire at large, and afterward declare vnto you what the *Marle* is, and what ſorts thereof, there bee vſually found in the Weald of *Kent*; and laſtly enter into the true and profitable vſe thereof, as well in each ſort of arable Land, as alſo for the increaſe of Corne and Paſture thorow the kingdome.

The arable ground of this Weald hath commonly a fleet and ſhallow mould to be turned up by the Plough, ſo as in many places the dead earth or mould is within three inches of the face of the ground, & in the beſt places, the good mould exceedeth not ſixe inches in depth at the moſt, & therfore it wanteth conuenient ſubſtance to nouriſh Corne any long time, but will faint and giue ouer, after a Crop or two; for the which reaſon alſo, it cannot yield any ſweet or deepe Graſſe. Beſides this, the Weald hath many copped or hilliſh grounds, out of which there doe many Quits or Springs of water iſſue, that make it cold & barren; and from theſe Hillocks, the beſt part of the good mould is waſhed downe into the Water-courſes and Dikes that bee made to diuide and draine the Land. Furthermore, the Weald is diuided into many ſmall incloſures, the biggeſt ſort (for the moſt part) of which, are betweene ſixteene Acres and twelue in quantity, and thereby hath it many hedges & trees, which in vnſeaſonable weather doe keepe both the Sun and Wind from the Corne, ſo as for want of that ſuccour and comfort, it groweth & many times rotteth in the Earth, ſo that it carneth not, nor eareth, nor proſpereth

reth kindely many times. And these small Closes are caused by this, that men are not able to marle any great part or quantity of ground at once; and having marled a little, they are desirous to sow it with corne: for the preservation whereof, as also for draining it, they are inforced to make so many and small severalls: for all which reasons it is plaine, that there is little good arable Land there, and rarely any good pasture, those only places excepted, which are amended by irrigations of flouds, which there is called flowing and overflowing. Contrariwise, the arable land of the Shire at large, hath a deep and fat mould of good earth, that is able to beare five or sixe good Crops together without intermission; and after three or foure yeares rest, will doe the like againe, & may so interchangeably keepe that course for ever: yea there be many grounds that are sowed without ceasing, because the mould is so deep, that when the upper part thereof beginne to faint and bee weary, men can adde some strength of Cattell, and with the Plough goe deeper, and fetch up a fresh mould that will continue for a long season. Furthermore, this arable ground is a hollow dry ground, for the most part, on a deepe Clay, that by tillage and the weather, wil become dry and spungy, so as the raine there washeth in the fat of the earth, the rather, because it is not so hillish and sliding as the Weald, but more levell, even and champion also, by which the Sunne and Wind doe dry the Corne, and doe make it both carne and eare well, and yeeld a purer flowre then that which is sobbed in wet, and hath long time lyen before it be dryed againe. But forasmuch as the great odds between these two sorts of grounds, may be made even by the helpe of *Marle*, if it be rightly ordered, as I said I will now shew you what it is, and how many sorts

thereof be found in this Weald of that countrey. *Marle* is indeed, as it is in name, the fat or (marrow) of the earth: for ſo did the *Germanes*, and ſo did our elders the *Saxons*, terme it, of the word *Mariæ*, which we found *marrow*, and thereof we call it *marling*, when we beſtow that fat earth upon our leane ground. *Pliny* ſaith, That the *Britannes* (meaning us) did uſe to amend their Land with a certaine invention which they called *marga*, that is, the fat of the earth, and it is to be ſeene in *Conradus Heresbachius*, that the *Germanes* doe uſe it to the ſame end, and doe call it by the ſame name till this very day: it is therfore a fat, oily and unctious ground, lying in the belly of the earth, which is of a warme & moiſt temperature, and ſo moſt fertile, ſeeing that heat & moiſture be the father & mother of generation and growth, howbeit this is not a pure & ſimple marrow (as that is which lieth in our bones) but a juice or fat liquor mingled with the earth, as is the fat which lieth mixed, and diſperſed in our fleſh, ſo as the one may be drawne away, and the other remaine, as it ſhall anon appeare unto you.

Foure ſorts of Marle.

Foure ſorts of *marle* be found in this Weald, knowne aſunder by the difference of colors, & thereby alſo differing in degrees of goodneſſe one from the other: for there is a gray, a blew, a yellow, and red *marle*, all which be profitable, if they be earthy and fat, or ſlippery as ſoape: and moſt times little worth, if they be mixed with ſand, gravell, or ſtone. So the blew is reputed the beſt, the yellow the next, the gray the next, and the red leſſe durable then the other three; and yet it is thought the red to be the better, if it be found upon the blew or others. Theſe *marles* doe lie in veines or floores, amongſt thoſe hillockes or copped grounds moſt commonly, whereof I have ſpoken, and do oftentimes ſhew themſelves

1. 2. 3. 4.

ſelves at the foot of the hill, or about the mid way betweene the foot and the top thereof: ſome of them have over them a cover of ground, which we call Cope, not exceeding ſeven or eight foot in depth; ſome lie deeper, and other ſome doe ariſe, as namely, where the ground lieth not high, and that *marle* commonly is very good; and there is in diverſe level grounds good *marle*.

And as *marle* is for the moſt part of theſe foure colours, ſo is arable ground for the moſt part of theſe foure ſorts following; that is to ſay, either a cold, ſtiffe and wet clay, which is either the cope of the *marle*, or lieth neere unto it, and is therefore commonly called, *The marle cope ground*, or a haiſell mold, which I count to be one of the beſt wealdiſh moulds, being a compound mold, and very good for *marle*, and will quit the coſt very well. Then are there two ſorts of ſandy mold, the one being a reaſonable good kind, but not equall to the haiſell mold, for you ſhall have in divers places of the weald this haiſell mold to beare two or three good crops of wheat being Summer-fallowed, together, which you ſhal hardly have of any ſandy ground without mending: but as I ſaid of the better ſort of theſe two kinds of ſandy molds, you have commonly very rich wheat, being well marled, which is not ſo barren as the other; but this laſt kinde of ſandy mold, is a very barren kinde of ground, and hath a very fleet mold, and you ſhall have very heath grow upon it in divers places; and yet being ordered as followeth with *marle*, will beare both good corne and paſture. And now that we may the better underſtand how to marle and manure every of theſe ſorts by it ſelfe, you muſt know that the haiſel ground being dry, and not ſubject to winter-ſprings, or teares of water (for, which ſome call ſuch, A whining or weeping ground)

Foure ſorts of grounds.

1.

2.

2.

The ordering of the haiſell mould.

ground) is to bee handled thus.

Firſt, plough it as deepe as you can, with the ſtrength of eight beaſts at the leaſt; and be not afraid to plough up ſome part of the dead earth that lieth under the upper good mold, for the Sun, the raine, the wind, and the froſt, will in time mellow & amend it; and beſides that, the mould will be the deeper for a long time after, and thereby keepe it ſelfe the longer from being ſtiffened with the *Marle*. Then may you beſtow 500. cart-loads (as we call them) of *marle* upon each Acre thereof, every load containing 10. or 12. Buſhels of eight gallons, and each Acre containing 160. Rods of 16. foot and a halfe to a rod. Then alſo you may chuſe whether, at the firſt breaking up you will ſow it with Oats, to kill the graſſe, or elſe firſt marle it, and ſow it with wheat, or otherwiſe Summer-fallow it in the *May* after the Oats, and then marle it, and ſow it with wheat. Vpon that fallow or gratten (as wee call it) you ſhall doe well to ſow it with peaſe, and at *Michaelmas* following, to ſow that Peaſe ſtubble or gratten with wheat againe, which alſo will be the better, if the Summer wherein it carried Peaſe, were moiſt, becauſe the peaſe being rich and thick, doe deſtroy the graſſe, that together with the waſhing of the fallowes by rain, doth greatly conſume the hart and vertue; or as we call it, the ſtate of the ground. But if that Summer were dry, then is a fallow beſt, becauſe the Sunne with his heat doth much good to the ground, and inableth it the better to beare out the weather in the Wheat ſeaſon enſuing. If you like to ſow it, as I ſaid, with peaſe, ſow them as early and timely as you may, for they wil be ſo much the ſooner harveſted; and then alſo you may plough or ſtirre your gratten the ſooner, whereby it will be the better hardned to beare

out

out the weather in the time of sowing your wheate: but I doubt, Pease doth somewhat stiffen it. Two bushels of wheat do suffise for the sowing of an acre hereof, except it be for the first crop, after the new breaking up of the ground; during which time, there is found a worme called an *Emble*, which in *French* signifyeth corne in the ground, being of colour yellow, and of an inch in length, and will eat some part of the corne; but if you sow it thicke, it will be both small eared & thick, and slender of straw, which the raine & wind will beat and hurle downe, and then it will scarsely rise againe; or if it do, yet through the neereneſſe of the shadow of the trees and hedges, that in so small closes be many, it will rather rot for want of drying, then come to maturity, that is, to perfe & hard, and full growne corne. After your first marling, you must carefully foresee, that you plough not this ground either with deepe or broad Furrowes, but fleet and narrow, lest you cast your *Marle* into the dead mould; for *Marle* differeth much from dung in this behalfe; dung spendeth it selfe upward, and howsoever deepe it lie, the vertue thereof will ascend: but *Marle* (as saith *Sir Walter Henley*, in his Husbandry) sendeth his vertue downeward, and must therefore be kept aloft, and may not bee buried in any wise. Furthermore, if your ground be hillish or coppied, it shall bee fit that you make your Ridges 7. or 8. foot broad at the least; for in such falling lands, the more broad furrowes you make, as you must make many, where you make Ridges, the more of your *Marle* shall be washed and carried into your bottomes. It is good also to draw a crosse or quarter Furrowe, and opening the endes of your land Furrowes into it, to leave the other endes of your Furrowes stopped; *Note.*

that

that the water-shoot run not all the length of the field. Againe, this ground would alwaies be sown under furrow, and that also before *Michaelmas*, if the season will so permit: for this ground (if it be well husbanded) will bee mellow and hollow, or loose, whereby through Raine and frost, it would sinke downe from the root of the Wheat; if it should bee sowne above furrow, the which being uncovered, must needs be bitten and killed with the cold. It is also very fit that you harrow not this sort of ground too small, but that you leave the clods as big as a Bowle, the which being mouldred with the frost, will both cover and keepe warme what is underneath. Moreover, it shall bee good, that upon some faire and dry day, in the beginning of *March*, you put your flocke of sheepe into your wheat, that with their trampling upon it, the corne may be well and fast closed with the earth; yea, & presently after (if it will bear foot) you may roll it as you doe Barley, whereby both the Clods shall be broken, and the Gratten or Stubble shall be more even and ready for the Mower. Generally you must understand; that after you have bestowed your *Marle* in the field, you ought to let it lie unspread abroad, untill you be ready to plough, & then immediatly after the spreading of it, turne it into the ground with the Plough; for otherwise if it should lie long spred in the field, the Sunne will spend no small part of the fatnesse thereof, although I know many desire it, because it will be the smaller being burned with the Sun, which I like not. And therfore also no good Husband will carry and spend his dung in the time of Summer, except hee doe presently withall plough it into the ground; for although the Mould of the arable Land it selfe will take good, if it be turned to the Sunne, which will both dry

and

nd faſten it, yet the matter fareth far otherwiſe with the *Marle*, from which if the Sun ſhall draw and ſucke the fat moiſture that maketh the Land fertile, then becommeth it (as *Columella* ſpeaketh) of the worſt ſort of ground, *Solum ſiccum, pariter & denſum & macrum quod ſive exerceatur, ſive reſſat, colono refugiendum eſt.* It becommeth (ſaith hee) a dry, thicke, and leane Clod, which whether it be tilled or laid to reſt, muſt be forſaken of the husbandman as unprofitable. And now your Haiſell mould being thus marled, plowed, ſowne, and manured, you may not charge with Wheate above twice, and then it muſt reſt five or ſixe yeares together; all which time it will beare a very good and ſweet Paſture, well ſet with a white Clover, or three-leaved graſſe, moſt batning and profitable, both for Sheep and Bullockes.

After thoſe yeares ended, it will grow to ſome Moſſe, or wil peradventure ca upſt Broome, and then it is time to breake it up, and ſow and handle it as before, for two other Wheat ſeaſons or crops, leaving it a wheat-gratten or ſtubble, rather than with an Oat-gratten or ſtubble, which burneth the land being marled. Being thus interchangeably ſowed and reſted, your Haiſell mould will continue good arable and paſture, by the ſpace of thirty yeares together; whereas if it ſhould be continually ſowed, ſixe, ſeven, or moe yeares together without reſt, it will become utterly unfruitfull, both for Corne and Cartell alſo. Neither will it any thing availe to marle it over againe when it is ſo decayed, becauſe the former *Marle* having his juice exhauſted by continuall Tillage, whereof the Corne ſucketh one part, and the Sonne, Winde and Weather dryeth and waſteth the reſt, is but a dead Clod (as I ſaid) that is not capable

of

of new *Marle* to amend it, nor casteth any profitable grasse at all; for proofe hereof, I my selfe, seeing that the common earth of High-wayes, were by treading of Cattell, washing of Raine, and the drying of the Sunne and weather, it lay separated from that naturall juice which it hath in the pit, and spreading it upon the ground, I saw that the land was not onely not amended, but much the worse by it. And now for an end of handling this sort of Haisell ground; if it shall appeare unto you, that five hundred loads of *Marle* upon the Acre, have clunged, stiffened, and too fast bound your land (as indeed the nature of *Marle* is to bind and to stiffen) then take you some of these waies to help it: either rest it foure or 5 yeares, or fodder upon it before you bring it up with so many Cattell as you may; or take the uppermost part of your Ditches or Forelands, or waste places of your fields which you may mingle with Doung, and which, before you sow your Wheat, you may lay upon your fallow, and stir it in with your plow, and by this you shall both loosen your *Marle*, and refresh your ground, so that within forty yeares the mould of your ground will cleane eat up and swallow the *Marle* that you lay upon it; and then become hungry, and incapable of *Marle* againe as it was before at the first.

And by this also you may see the very cause for which it is good not to sow your marled land continually, but to pasture it by turnes, and so give it rest; namely, because the continuall plowing doth exhaust and spend the fat of the *Marle*, leaving the drossie, dry, and fruitlesse parts thereof, to lye and cover the face of your ground; whereas pasturage, through the dounging, treading, and foddering of Cattell, doth increase a new Mould, which mingling it selfe with the dead Mould,

doth in the end give some life and heart unto it. And therefore these Farmours and owners that have beene at the cost to marle their ground, and will not forbeare to till it, but hasting to raise their charge, doe thereby utterly strike it with barrennesse, are like to *Æsops* man, who having a Henne that layed him everie day a golden Egge, and being greedie to have all the gold at once, did therefore kill the Henne, thinking to have found her belly full of gold, and so was both defrauded of that he looked for, and lost also what he had before. Hitherto of the nature, ordering and marling of this Haisell ground. Generally now for the continuall fallowing and stirring thereof, you must understand, it may neither bee fallowed wet, lest it answer more Grasse than Corne; nor yet so dry, that the dead bottome swell up, as in great drought it will, and swallow the good Mould that lieth above, and therefore bind not your selfe to any precise time of any moneth, but the opportunitie either in *May* or *June*, as you shall finde the weather to have prepared it for your desire. In the like temper you ought to stirre it after a showre, after Saint *James* his day, or in the end of *July*; for so will it be dry and hard before the time of sowing, whereas if it be stirred later, every small Raine will distemper it into Dirt or Mire, by reason of the tendernesse thereof, and then can you not fitly bestow your seed upon it.

The ordering of the Marle Cope ground.

The Marle Cope ground followeth, which is most commonly (as I said) a stiffe, wet, cold Clay, and not so fit as the former to be marled for Corne, except in some few fleet places thereof, but yet it may serve for Pasture or for Oates; such of them as bee marled, must bee fallowed fleet or shallow, lest the Marle become

come drowned in the wet: then being marled, they may in dry Summers (and not over moist Countries) beare Wheat in some mediocrity. Three hundred loads at the most of *Marle* are sufficient for an acre of this kinde, and two bushels and a halfe of wheat will sow the same, which must be cast above furrow fourteene or twenty dayes before *Michaelmas*. It requireth round, high and narrow Ridges, and that the water-furrowes be stricken somewhat deepe, the better to conveigh moisture from the Corne, and that it be left cloudy as much as may be: and yet to say the truth, such as will convert this sort of ground to tillage, must provide a greater quantity of rich ground or Greet (as we terme it) and Doung, than of *Marle* it selfe, to amend this Land withall. But if there be any ground that is light and whining, or weeping, because of Springs that are therein, and therewith doth cast up Rushes, let that be marled upon the greene land with 4. hundred or five hundred loads upon the Acre, about the latter end of Summer; for so will the *Marle* sinke into it, and cast up a sweet grasse for eight or ten yeares together, and untill that the *Marle* be sunke so low, that another sword or crust of earth be grown over it, and then is it fit time to plow it, but yet very fleet and narrow, for so will it bear good Oats; but if it be so wet that you cannot adventure to sow your Wheat upon it, because the Rushes be not killed with this first plowing, then may you sow it againe with Oats, drawing good water-furrowes to draine it, because it will be the wetter for plowing, and thereby the *Marle* also will the sooner lose his force; thus doing, let it lie to Pasture againe.

Rushes.

There bee some other grounds of the *Marle* Core, which carry a sowre Grasse, and the Dyers VVeede

Dyers-weed.

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(commonly called Greening weed) and having a great tore thereof, the which also may be amended by three hundred or foure hundred load of *Marle* upon the acre of the greene land: for the *Marle* will both rot the tore or vesture thereof, and also inrich the mould very much; so as it will answer good Pasture twelve yeares after: and when you shall perceive that the *Marle* is well sunke, then may it be ploughed fleet and narrow, sowed with Oats, and fallowed; so may it both beare good Wheat, if it finde a good season, and bee the richer a long time after, partly by the benefit of the *Marle*, partly by the rotting of the tore, and sword, and partly by the dung and water of the Cattell that pasture upon it: for the sweeter the Pasture is, the more Beasts it feedeth, and the more Beasts it beareth, the more it selfe is amended by it.

Touching the fallowing of this ground, great heed is required: for as it swelleth more then the Haisell ground, if it be taken hard and dry, so it is more grassie then that, or the sandy Soyle, if you fallow it wet: The season therefore followeth commonly in *Aprill*, or in the beginning of *May*, for to fallow it, and to stirre it about *Midsummer*, or so soone after as the raine shall have prepared it meet for your un-shod Oxen to labour upon it. Many men fearing to hit the right season for this ground in the Spring of the yeare, doe make it ready by a Winter fallow before *Christmas*, and by stirring it before *Midsummer*, if they may; which manner is not to be misliked.

Lastly, commeth the two sorts of sandy ground, and gravelly mould; the one being to be ordered much after the Haisell mould, saving he would have somewhat more *Marle*, and also would bee favoured more in the

The ordering of the sandy moulds.

often tillage, than it: for the Haiſell Mould will bear or endure more tillage than the Sand. But this laſt ſort of ſandy ground, being a very ſtaring Sand (as wee uſe to call it) for much of it will beare Heath, being of it ſelfe very barren, and very fleet or ſhallow Mould, and over hot and dry, and by reaſon of that extremity, is unfertill, except it bee marled very plentifully. And therefore when you breake up this ground, plow it as deepe as you may, not fearing to caſt downe the beſt Mould thereof, becauſe the *Marle* will pierce thorow, and ſinke downe into it. An acre of this ground requireth five hundred or ſixe hundred loads of your *Marle* at the leaſt. Sow alwayes under-furrow about *Michaelmas*, with two Buſhels and a halfe upon the Acre, which it will better carry than the Haiſel ground: for although the ſtraw be ſmall, yet will it bee harder, and ſtand better than that of the other. The worme whereof I ſpeake, will be buſie with that, that groweth on this ſort of ground, untill that the heat thereof be ſomewhat aſſwaged by the *Marle*. If your ground be hilly, make your Water-furrowes in ſuch ſort, as I have ſaid before, for the ſaving both of your *Marle* and Mould; harrow it very little, leave it as cloddy as you may. After that you have taken a Crop from it, fallow that Wheat Gratten or Stubble in *May*; after that ſtirre it alſo, and then about *Michaelmas* ſow it with Wheat againe: for it is not yet rich enough to beare you good Peaſe. This done, let it reſt foure or five yeares, and if it ſend up any plenty of Broome, cut or pull them when they be of ſome meane bigneſſe, but plow not the ground, untill it have taken ſuch reſt; and after it, you may well breake it up of new, and ſow it with Oats: which Oat Gratten or Stubble,

you must Summer-fallow, when it is at the Harvest; and then if you desire to have it in good heart, you must marle it with three hundred or foure hundred loads upon the Acre againe. After this Crop thus taken, rest it five or sixe yeares, and then take one crop more of Oates from it, and after a Summer-fallow, sow it with Wheat, and suffer it to lye a Wheat Gratten or Stubble, till it shall have rested as before is appointed for the Haisell ground, and so it will bee the better thirty or fortie yeares after the marling. Wee have in this Weald a sandie and gravelly ground that is wet and weeping, the which is scarcely worth the marling, except the nearnesse of the *Marle*: and thereby the small cost and charge thereof may intice a man to bestow the cost upon it with *Marle*, and then the best way is to marle upon the greene Land, or upon a fallow, with five hundred loads or more upon the Acre, or rather to take the profit thereof by Pasture than by Tillage: for it will hardly beare good Corne, which is soone killed with the wet vapour that is continually sent up from the wet Springs that lye under it. This sort of ground is to be fallowed, when it is both hard and dry, because it swelleth not as doth the Haisell Mould, and may therefore bee take in *Iune*, if former faire weather bring it not to a dry season; and it is to be stirred also after a showre, in the like plight as the Haisell mould before. Your marleable grounds being ordered in this wise, severally set downe for each kinde of them will continually stand fruitfull either for Corne or Pasture: and albeit the high prices which Corne hath of late yeares carried, may allure some men to sow Corne incessantly, and thereby to spend their *Marle*, and to choke their arable in the

end, yet I doubt not but the wiser ſort can ſee that it is much better to maintaine their grounds hearty and in good plight for ever, than to raiſe a ſhort gaine, that will bring a long and perpetuall loſſe upon them, the rather alſo, becauſe that Butter, Cheeſe, and the fleſh of Beefe and Mutton, be advanced in price equally, if not beyond Wheat, Rie, Barley, and the other Graines. Howbeit a good Husbandman will make his profit of them both: for if he have one hundred, or one hundred and twenty Acres of this Wealdiſh arable, hee will ſo marle and manure them, that dividing his land into five or ſixe equall parts, he may continually plow twenty or five and twenty Acres for Corne, and yet lay to Paſture the reſt by turnes: ſo that by the helpe of his *Marle*, his Land ſhall be continually rich and profitable, both in the one and other of them. And as thus I have ſpoken of the Weald, deſcribing the nature and property thereof: ſo may every man of diſcretion and judgement, which ſhall meet with earth of the ſame quality and condition (in what part of this Kingdome ſoever) make application of theſe Rules before rehearſed, and no doubt but the profit will make both the labour and coſt profitable and pleaſant.

The

The severall wayes, according to the opinions of Writers, and the certaine wayes according to the experience of Husbandmen, for the destruction of Moles *or* Moales, *which digge and root up the earth, and how to reduce and bring the ground to the first goodnesse, having bin spoiled by them.*

IT is needlesse either to describe the nature and quality of this vermine, or the injury and hurt which they do to the Husbandman, Gardiner, and Planter, since no Country is exempt from their annoyance: but touching the remedies, they are of greater secresie, and therefore I thought good in this place to insert them.

The ancient writers are of divers opinions touching the manner of destroying this creature, and therefore have left unto us sundry Medicines how to worke the same: amongst the which, one writeth, as an approved experiment, that if you take Walnut shels, and fill them with Brimstone, Chaffe, and Petrosin, and then setting them on fire, put them into holes or trenches, thorow which the Moale passeth, and the very smell or stinke thereof will poyson them; so that if you digge, you shall finde them dead in their holes.

Another affirmeth, that if you take Brimstone, and danke stinking litter of horses, and burne it in the holes or haunts of the Moales, it also will impoyson them; so as you shall finde they will come out of their caves, and lye dead upon the greene grasse.

A third affirmes, that if you take greene Leekes, garlicke, or onions, and chopping them grossely, thrust it into the holes, and the very fume or savour thereof will so astonish and amaze the Moales, that they will presently forsake the earth, and falling into a trance, you

may take them up with your hands. Now there is not any of these medicines which can bee disallowed: for there is no doubt but that they will worke the effects spoken of, if the moale can be brought to take a full sent thereof: but it is a vermine curious of sent, and passing quicke of hearing, and being in a spacious ground, will prevent these baits; and therefore they are rather to be applied for gardens or little grounds, where there is but a moale or two, than in large fields, where there be many hundreds.

To conclude, for this matter of medicines, or for the helping of gardens, hop-yards, or any small spot of ground, there is not any thing held more availeable, than to sow in that place the herbe called *Palma Christi*: for it is found by certaine experience, that whersoever that herbe groweth naturally of it selfe, or otherwise is either purposely sowne or planted, there in no wise will any Moale abide.

Thus much I thought good to shew you for the use of medicine, and for clearing of small grounds: now for the annoyances which happen to great, large, and spacious fields, through the multitude of Moales; there is onely three absolute waies for the curing of the same.

The first is, in the moneths of *March* and *April*, to view where they cast, and go about to make an extraordinary great hill, in which they build them nests, which is knowne by the newnesse of the mould; then look for the new trench which leadeth to the same; for as she goeth she returneth: then with your moale-spade open the trench in divers places, and then very still and silently, and observing to take the wind, to prevent both hearing and smelling, watch the Moale as shee goeth or returneth, which is, Morning, Noone, and Evening, and as soone

ſoone as you ſee her caſt, ſtrike her with your Moale-ſpeare, made of many ſharpe pikes, and ſo caſt her up, and kill her. Thus have I ſeene by one man an hundred deſtroyed in one day.

The next infallible way for the deſtruction of Moales is: If you can by any poſſible meanes bring in water to overflow and waſh your ground, and as ſoone as the earth is wet over, the Moales will come forth of themſelves, and you may gather them up with your hands at pleaſure.

The laſt (in deed as much approved as any) is to take a live Moale in the moneth of *March*, which is their bucking or ingendring time, and put it into a deep braſs Baſon, or other deep ſmooth Veſſell, out of which the Moale cannot creep, and then at evening bury it in the earth up to the brimme, and ſo leave it, and the impriſoned Moale will preſently beginne to ſhrike, or complaine or call, ſo that all the Moales in the ground will come to it, and tumbling into the Veſſell, they are priſoners alſo, and the more priſoners, the greater will be the noiſe; and the more noiſe, the more Moales will come to the reſcue, ſo that I have ſeene 50. or 60. taken in one night, and in one Veſſell or braſſe Kettle.

Now having thus learned how to deſtroy the Moals, it is meet you alſo know how to prevent the comming in of forraigne moales; becauſe though you keepe your ground never ſo cleane, yet if your next neighbour be an ill Husband, his field may ſoone impoyſon yours againe: therefore to prevent the comming in of any forraigne moale, make but little Furrowes or Trenches about your ground, and ſcatter in them ſmall round bals made of Hemp-ſeed, or Hemp-ſeed and *Palma Chriſti* beaten together, and you ſhall not need to feare the

comming in of any neighbour Moales, how many soever there be about you.

Lastly, for the reducing or bringing the ground to the first perfection againe (for howsoever some Husbandmen say, moe Moale-hills, moe ground; yet tis certaine, that moe Moale-hills, lesse good ground) for never was yet sweet grasse seene on a Moale-hill; therefore to bring it to perfection, which I meane to be meadow ground, or ground to be mowne, which Moale-hills cannot be: you shall first with a sharp paring-shovell, pare off the swarth about three fingers deepe, for feare of hurting the roots of the grasse; and then the swarth taken off, digge away the rest of the mould, and scatter it as small as you can round about the hill, then take the greene swarth, and cutting it artificially, lay it close, and fast, and levell, where you tooke away the mould, as if there had never beene Hill there: and thus doe to all your hills, though they be never so innumerable; and after all your ground is levelled, as soone as the first showre falleth, run all your ground over with a paire of backe Harrowes, or an Harrow made of a Thorne-bush, and it will breake the mould as small as ashes, which will so comfort and refresh the root of the grasse, that it will grow in infinite abundance; and the sowrenesse which was caused by reason of the Hills, will come againe to a perfect sweetnesse, and the meadow will bee more fruitfull then before by many degrees. And thus much for the destruction of Moales, and the reducing of the earth to his first goodnesse.

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FINIS.

MARKHAMS

Farewell to

HVSBANDRY:

OR,

The Enriching of all sorts of Barren and Steril grounds in our Kingdome, to be as fruitfull in all manner of Graine, Pulse, and Grasse, as the best grounds whatsoever:

Together with the annoyances, and preservation of all Graine and Seed, from one yeare to many yeares.

As also a Husbandly compuration of men and Cattels daily labours, their expences, charges, and utmost profits.

The fourth time, revised, corrected, and amended, together with many new Additions, and cheape experiments:

For the bettering of arable Pasture, and wooddy Grounds. Of making good all grounds againe, spoiled with overflowing of salt water by Sea-breaches: as also, the Enriching of the Hop-garden; and many other things never published before.

LONDON,
Printed by EDWARD GRIFFIN for IOHN HARISON, at the signe of the golden Vnicorne in Pater-noster-row. 1638.

MARKHAMS

Farewell to

HVSBANDRY:

OR,

The Enriching of all forts of Barren and
Steril grounds in our Kingdome, to be as
fruitfull in all manner of Graine, Pulse, and
Grasse, as the best grounds whatsoever:

Together with the annoyances, and preservation of all
Graine and Seed, from one yeare to many yeares.

As also a Husbandly compurgation of men and Cattels
daily labours, their evils, uses, and unmoth proofe.

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For the better ering of arable Pasture, and woodly Grounds. Of
making good all grounds against, spoiled with overflowing of salt
water by Sea-breaches: as also the Enriching of the Hop-garden:
and many other things never published before.

LONDON,
Printed by EDWARD GRIFFIN for IOHN HARRISON,
at the signe of the golden Unicorne in Pater-noster-
row. 1623.

To the Right Worshipfull, and his most worthy Friend, Mr. Bonham Norton, Esquire.

Worthy Sir:

KNowledge which is the divine mother of certaine Goodnesse, never came unwelcome to a knowing Iudgement; no more I hope shall this my labour to your Worthy Selfe, since doubtlesse you shall finde in it many things New something necessary, and nothing which hath not in it some particular touch of profit: It is a worke your former incouragements to my other labours did create in mee; and the wants you worthily found, I hope shall bring you supplies both wholesome and becomming. The experience I assure your Goodnesse, was the expence of a bitter and tedious Winter, but the contentment (in gaining my wish) made it more pleasant than all the three other Seasons.

What ever it be, it comes to you full of love, full of service. And since I know Vertue measureth all things by its owne goodnesse; it is enough to me, that I know you are that Vertue. In you is power to judge, in you is Authority to exercise Mercie; let them both flie from your Goodnesse with that mildnesse, that in them my hopes may be crowned, and my selfe rest ever at your service,

Gervase Markham.

The Preface to the *Reader.*

shewing the uſe, profit, and truth of the Worke.

THe uſe and application of this Worke (gentle Reader) is to reduce the hard barren and ſteril grounds, ſuch as were never fruitfull, or ſuch as have beene fruitfull and are made barren by ill Husbandry, to be generally as fruitfull as any ground whatſoever; from whence ſhall enſue theſe generall profits.

Firſt, plenty of Corne and Pulſe, becauſe all grounds being made able and apt for tillage, the Kingdome may afford to ſow for one buſhell that is now, hereafter five hundred; ſo mighty great are the unfruitfull waſtes of Heaths, Downes, Mores, and ſuch like, which at this day lie unprofitably, and to this abundance of Corne will ariſe an equall abundance of Graſſe and Paſture; for as the beſt ground of the worſt, is to be converted to Paſture, and the worſt to Tillage, ſo that worſt being tilled and dreſt, when it hath done bearing of Corne, (which will be in ſixe or ſeven yeares) ſhall for as many yeeres more beare as good Paſture either for breeding or feeding, as can be required, and then being newly dreſt againe, ſhall newly flouriſh in its firſt profit.

Secondly, whereas in fruitfull places the third or fourth part of al arable ground is loſt in the fallow or

tilth ground, now in theſe barren grounds you ſhall keepe no fallow field at all, but all ſhall beare either Corne or Graſſe, that fallow part ſerving to pay for the charge beſtowed on it and the reſt.

Laſtly, wheras in fertill grounds you cannot have either Wheate, Barley, or Rye, under two, three, foure, five, and ſometimes ſixe ſeverall plowings, as fallowing in *January* and *February*, Stirring in *Aprill* and *May*, Foiling in *July* and *Auguſt*, Winter-ridging in *October* and *November*, and ſowing with other Ardors; now in theſe hard grounds reſtored you ſhall not plow above twice at the moſt, to the ſaving of the Husband-mans paines, his Cattels travell, and a larger limitation of time for other neceſſary buſineſſes.

For the truth of the Worke, hee that will ride into the barren parts of *Devonſhire* or *Cornewall*, into the mountainous parts of *Wales*, into the hard parts of *Middleſex* or *Darby-ſhire*, or into the cold parts of *Northumberland*, *Cumberland*, *Weſtmoreland*, *Lancaſhire*, or *Cheſhire*, ſhall finde where induſtry is uſed, a full ſatisfaction for all that is here written. Farewell.

Thine *G. M.*

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An excellent way to take Moles, and to preserve good Grounds from such annoyance.

PUt Garlike, Onyons, or Leekes, into the mouthes of the holes, and they will come out quickely as amazed.

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ADDITION.

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Put Garlick, Onyons, or Leeks, into the mouthes of the holes, and they will come out quickly as maned.

MARKHAM,

HIS

Farewell to Husbandry.

CHAP. I.

The nature of Grounds in generall; But particularly of the barren and sterile earth.

TO come to the full effect of my purpose without any preambulation, or satisfaction to the curious, for to the honestly vertuous are all mine endevours directed: you shall understand that it is meet that every Husbandman be skilfull in the true knowledge of the natures of Grounds; as which is fruitfull, which not: of which, in my first Bookes I have written sufficiently; nor doe I in this booke intend to write any tittle that is in them contained; for as I love not *Tautologie*, so I deadly hate to wrong my friend.

Grounds then, as I have formerly written in my first Books, being simple or compounded; as simple Clays, Sands or Gravels together; may be all good, and all fit to bring forth increase, or all evill and barren, and unfit for profit: for every earth, whether it be simple or compounded, whether of it selfe or of double

mixture, doth participate wholly with the clyme wherein it lyeth; and as that is more hot, or more cold, more moyſt, or more dry; ſo is the earth ever more or leſſe fruitfull: yet for the better underſtanding of the plaine Countrey-man, you ſhall know that both the fruitfull and unfruitfull ground have their ſeverall faces and characters whereby they be as well knowne as by the clime or ſituation of the continent; for that ground which though it beare not any extraordinary abundance of graſſe, yet will load it ſelfe with ſtrong and luſty weeds, as Hemblocks, Docks, Mallowes, Nettles, Ketlockes, and ſuch like, is undoubtedly a moſt rich and fruitfull ground for any graine whatſoever. Alſo, that ground which beareth Reed, Ruſhes, Clover, Daiſie, and ſuch like, is ever fruitfull in graſſe and Herbage, ſo that ſmall coſt and leſſe labour in ſuch grounds, will ever make good the profit of the Husband-man: but with theſe rich grounds at this time I have nothing to doe.

Knowledge of barren grounds.

To come downe then to the barren and unwholeſome grounds, you ſhall underſtand that they are to be knowne three ſeverall waies; firſt, by the clyme and continent wherein they lie; next, by their conſtitution and condition; and laſtly, by outward faces and characters. By the clyme and continent, as when the ground lies farre remote from the Sunne, or when it lies mountainous and high, ſtony and rocky; or ſo neere unto the skirts and borders of the Sea, that the continuall Fogges, Stormes, Myſts, and ill Vapours ariſing from thence, doe poyſon and ſtarve the earth: all which are moſt apparant ſignes of barrenneſſe. By the conſtitution and condition, as when the ground is either too extreamely cold and moyſt, or elſe too violently hot & dry; either of which produceth much

hard-

hardneſſe to bring forth, and ſheweth the earth ſo lying, to be good for little or no profit. By the outward faces and characters; as when you ſee (in ſtead of Graſſe, which would be greene, flowry, and thicke growing) a pale thinne moſſie ſubſtance cover the earth; as moſt commonly is upon all high Plaines, Heathes, Downes, and ſuch like: or when you ſee the ground covered with Heath, Lyng, Broome, Braken, Gorſe, or ſuch like, they be moſt apparent ſignes of infinite great barrenneſſe, as may bee ſeene in many Mores, Forreſts, and other wilde and woody places. And of theſe unfertile places, you ſhall underſtand that it is the clay ground, which for the moſt part brings forth the Moſſe, the Broome, the Gorſe, and ſuch like: the Sand, which bringeth forth Brakes, Lyng, Heath; and the mixt earth, which utters Whinnes, Briars, and a world of ſuch like unnaturall and baſtardly Iſſues.

Thus having a true knowledge of the nature and condition of your ground, you ſhall then proceed to the ordering, earing, and dreſſing of the ſame, whereby it may not onely be purged and cleanſed from thoſe faults which hindred the increaſe thereof, but alſo ſo much bettered and refined, that the beſt ground may not boaſt of more ample increaſe, nor your more fruitfull placed neighbours exceed you in any thing, more then in a little eaſe.

CHAP. 2.

Of the Ordering, Tilling, and Dreſſing of all ſorts of plaine barren Clayes, whether they be ſimple or compounded.

THou whom it hath pleaſed God to place upon a barren and hard ſoile, whoſe bread muſt ever more be grounded with ſweat and labour, that may eſt nobly and victoriouſly boaſt the conqueſt of the Earth, having conquered Nature by altering Nature, and yet made Nature better than ſhee was before: thou I ſay, that takeſt this honeſt delight in goodneſſe, hearken unto theſe following Precepts:

The firſt enriching of barren grounds.

As ſoone as thou haſt well pondered and conſidered the nature of thy ground, and doſt finde that it is altogether barren and unfruitfull, the clime and condition nor ſuffering it to bring forth any thing of worth or profit, and that thou haſt well weighed what manner of earth it is, as that namely it is either a ſimple Clay or a Clay to mixt with other earths, that yet notwithſtanding the Clay is ſtill moſt predominant, thou ſhalt then ſelect or chooſe out of this earth ſo much as to thy ſelfe ſhall ſeeme convenient, it being anſwerable to the ſtrength of thy Teame, and the ability of thy purſe and labour to compaſſe; and this earth ſo choſen out, thou ſhalt about the beginning of *May*, in a faire ſeaſon, breake up with a ſtrong Plough, ſuch as is generally uſed in all ſtrong Clay grounds, the ſhare being rather long then broad, and the Colture rather ſomewhat bending then ſtraight and even, accoreing as the nature of the ground ſhall require, which every ſimple Plough-man will ſoone finde out in turning up two or three furrowes, for according to the cutting of the

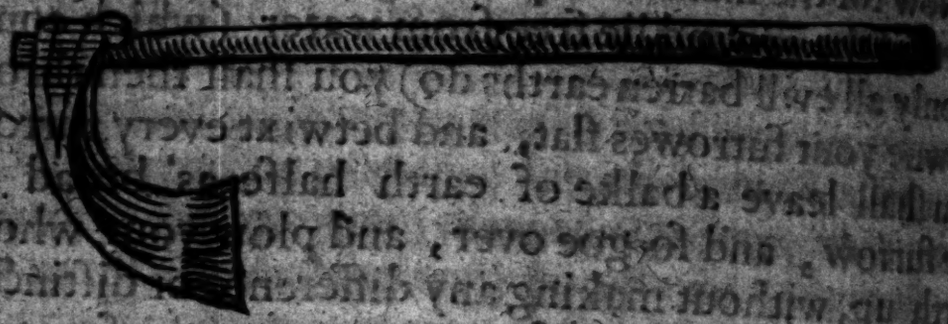
earth

earth ſo muſt the Husbandman faſhion the temper of the plough.

Now for the manner of plowing this bad and barren earth, if the ground lie free from water (which commonly all evill barren earths do) you ſhall then throw downe your furrowes flat, and betwixt every furrow you ſhall leave a balke of earth halfe as broad as the furrow, and ſo goe over, and plow your whole earth up, without making any difference or diſtinction of lands: but if you feare any anoyance of water, then you ſhall lay your furrowes more high, neere, and cloſe together, dividing the ground into ſeverall lands and proportioning every land to lie the higheſt in the midſt, ſo that the water may have a deſcent or paſſage on either ſide. The manner of plowing.

Now ſo ſoone as you have thus plowed up your land and turned all the ſwarth inward unto the earth, you ſhall then take hacks of yron, well ſteeled and reaſonable ſharpe, ſuch a cõpetent number, as or your purſe or power can compaſſe, or the greatneſſe of your ground requireth; for you ſhall underſtand that one good hacker, being a luſty labourer, will at good eaſe hacke or cut more than halfe an Acre of ground in a day; and with theſe hackes you ſhall hew and cut to pieces, all the earth formerly plowed up, furrow by furrow, and not the furrowes onely, but alſo each ſeverall balke that was left betweene, & any other greene ſwarth whatſoever the plow had eſcaped, and it ſhall bee cut into ſmall pieces as conveniently you can; for thereby is your mould made much more mellow and plentifull, and your ſeed at ſuch time as it is to be caſt into the earth, a great deale the better and ſafer covered, and much more ſooner made to ſprout and bring forth increaſe. Now for Hacking of ground.

the ſhape and faſhion of theſe Hacks, you ſhall behold it in this Figure.



When you have thus hacked all your ground, and broke in pieces all hard cruſts and roughneſſe of the ſwarth, you ſhall then immediately, with all the convenient ſpeed you can (becauſe time is very precious in theſe labours) if you be neere unto any part of the Sea-coaſt, or to any other creeke or river, where the ſalt water hath a continuall recourſe, thence fetch (either on horſe-backe, or in cart, or other Tumbrill, ſuch as the nature of the Country, or your owne eaſe can afford) great ſtore of the ſalt ſand, and with it cover your ground which hath beene formerly plowed and hackt, allowing unto every acre of ground, threeſcore or foureſcore full buſhels of ſand, which is a very good and competent proportion; and this ſand thus laid, ſhall be very well ſpread and mixed among the other hackt and broken earth. And herein it is to be noted, that not any other ſand but the ſalt is good or availeable for this purpoſe, becauſe it is the brine and ſaltneſſe of the ſame which breedeth this fertility and fruitfulneſſe in the earth, choaking the growth of all weedes and bad things, which would ſpout from the earth, and giving ſtrength, vigour, and comfort to all kind of graine or pulſe, or any fruit of better nature.

Standing of ground.

When you have thus ſanded your earth, you ſhall

then if you have any Limestone about your grounds (as barren earth are seldome without) or if you have any quarries of stone (which are seldome unaccompanied with Lime-stone) gather such Lime-stone together, and make a kilne in the most convenient place you have, as well for the carriage of the Lime, as for the gathering together of the stone, and having burnt your Lime, the manner whereof is so generally well knowne through the whole Kingdome, that in this place it needeth little or no repetition; you shall then on every Acre so formerly plowed, hackt, and sanded, bestow at least forty, or fifty bushels of Lime, spreading and mixing it exceedingly well with the other sand and earth; and herein is to be noted, that the stronger and sharper the Lime is, the better the earth will be made thereby, and the greater increase and profit will issue from the same; neither shall you need to respect the colour and complexion of the Lime, as whether it be purely white (as that which is made from Chalke) or gray (as that which is made from the small Limestone) or else blackish browne (as that which is made from the great stone and maine Quarry) since it is the strength and goodnesse of the Lime, not the beauty and colour which brings forth the profits.

Liming of ground.

Now that this Lime is of excellent use and wonderfull profit, doe but behold almost all the Countries of the Kingdome where there is any barrennesse, and you shall finde and see how frequently Lime is used, in so much that of mine owne knowledge in some Countries where (in times past) there was no Bushell made or used, there is now many loads, and all risen from the profitable experience which men have found in the same.

Meanuring of ground.

Now, when you have thus limed your ground, you shall then take of the best meanure you have, as Cowe, or Horse-dung, straw-rotted, either by the littering of Beasts, or by casting upon High-wayes the mudde of Lakes, Pondes or Ditches; the soyle of young Cartell made in the Winter time by feeding at stand Heakes, or any such like kinde of Ordure; and this meanure or compasse, you shall carry forth either on horse-backe, or in Carts or Tumbrels (according as the Countrey will afford) and you shall lay it and spread it upon your ground so formerly plowed, hackt, sanded, and lymed, in very plentifull manner, so farre forth as your provision will extend: for it is to be understood, that barren and hard earths can never be over-laded with good meanure or compasse, since it is onely the want of warmth and fatnesse which meanure breedeth, and causeth all manner of fruitfulnesse.

Time for all labours.

After you have thus meanured all your ground, it is to be supposed that the season of the yeere will be well shot on; for the labour of sanding will take little lesse than two moneths, your ground being of any indifferent great quantity, except you have the assistance and helpe of many of your friends, which is a courtesie that every Husbandman may imbrace, but not trust unto; for I would not wish any man that hath not Tenants to command, to presume on other friends, lest they faile him, and so his worke lie halfe done, and halfe undone, which is a great Character of negligence and improvidence: but let every one proportion their labours according to their owne strengths, and the number of their ordinary families. The lyming of your ground will take at least halfe so much time as the sanding; and

the

the meanuring rather more then lesse then the lyming; so that by reasonable computation of time, beginning to plow your ground at the beginning of *May*, ere it bee hackt, sanded, lymed, and meanured, *Michaelmas* will be come, which is the end of *September*: for I allow the moneth of *May* to plowing and hacking; *Iune* and *July*, for sanding; *August* for lyming; and *September*, for meanuring. So then to proceed on with your labour, at *Michaelmas*, or from that time to the end of *October*, you shall beginne to plow over that ground againe which formerly you had plowed, hackt, sanded, lymed, and meanured; and at this latter plowing, you shall plow the ground somewhat deeper than you did before, and taking a good stitch (as they call it in Husbandry) you shall be sure to raise up the quicke earth, which had not beene stirred up with the plow before, making your furrowes greater and deeper than formerly they were, and laying them closer and rounder together than they were before; and in this order or later earing, you shall be carefull to plow your ground as cleane as you can, without baukes and other escapes in Husbandry; and as you plow your ground, you shall have certaine Hackers, with their hackes, to follow the Plow, and to cut the earth and furrowes into very small pieces, as was formerly shewed in the hacking and cutting of the first ardor: then so soone as your ground is thus plowed and hackt, you shall take a paire or two of very strong and good yron harrowes, and with them you shall goe over your ground, tearing that which was formerly plowed and hackt into more smaller peeces than before, & raising up the mould in much greater abundance than was formerly seene: which worke once finished, you shall then

Second plowing.

Second hacking.

First harrowing.

then take your seed which would be the fineſt, cleaneſt, and beſt Wheate you can provide, and after the manner of good Husbandry, you ſhall ſowe it on the ground very plentifully, not ſtarving the ground for want of ſeed (which were a tyrannous penury) nor yet choking it with too much (which is as laviſh a folly) but giving it the full due, leave it to the earth for Gods bleſſing.

Of ſowing the ſeed.

The ſecond harrowing.

Now ſo ſoone as you have thus ſowen your ſeede, forthwith you ſhall take all the Harrows againe, harrowing the ſeed into the earth, and covering it cloſe and well with all care and diligence; and in this latter harrowing, you ſhall have great reſpect to breake every clot as much as you can, and ſo ſtirre up and make as much mould as you can, and the finer ſuch mould is made, the better it is, ſo it cover deepe and cloſe; for you ſhall underſtand, that all theſe kind of barren Clayes, are naturally tough, cold, and binding, whereby they ſtifle and choke any thing that growes within them; for the naturall toughneſſe of the earth will not give any thing leave to ſprout, or if it doe ſprout, the binding nature thereof, ſo fetters and locks it within the mould, that it cannot iſſue out, or if it doe (with extreame ſtrugling) riſe through the pores of the ſame, yet doth the cold preſently ſtarve the roote and make the ſtemme utterly unable to bring forth fruit, or any profit at all, ſo that except the toughneſſe bee converted to a gentle looſeneſſe and eaſie dividing of it ſelfe, the coldneſſe into warmth, and the hard binding unto a ſoft liberty, there can be ſmall hope of commidity which this manner of dreſſing the earth bringeth to paſſe; for the mixture of the ſand, takes away the toughneſſe; the Lime brings heate, and the meanure comfort and liberty to

Faults in the earth.

for

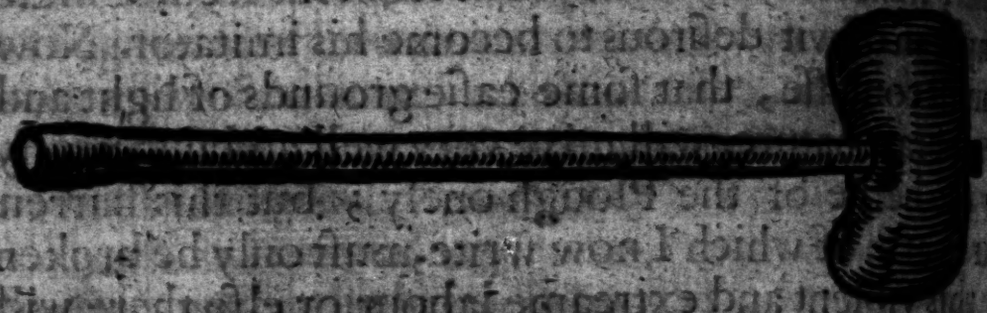
for the hacking and cutting the earth, that is to make all the rest simbolize and mixe together; for as if any Dispensatory, make a medicine, and cast his ingredients confusedly one upon another, without care of mixture, melting or dissolution, shall finde but a corrupt, disorderly, and ill compounded receipt; so he that dresseth and manureth his ground, and doth not by hacking, plowing, or some other husbandry, course mixe the earth and the compasse perfectly well together, shall seldome finde profit from his seed, or finde any man of wit desirous to become his imitator. Now I must confesse, that some easie grounds of light and temperate nature, will mixe very well and sufficiently by the helpe of the Plough onely; but this barren hard earth of which I now write, must only be broken by this violent and extreame labour, or else there will neither be mold, earth, nor any other coverture for the seed, but onely foule, great and disorderly clots and lumps, through which the graine can never passe, and that which lieth uncovered will bee made a prey to fowle and other vermine which will hourely destroy it.

After you have sowen and harrowed the ground, you shall then see if there remaine any clots or hard lumps of earth unbroken, which the teeth of the Harrows are not able to teare in pieces (as it is very likely you shall perceive many) for these hard barren earths which are plowed up in their greene swarthes, are nothing neere so easily broken and brought to mould, as are the mellow soft earths which have beene formerly plowed many times before, because the hard and intricate rootes of the Grasse, Mosse, and other quicke substances growing upon the same doth binde and hold the mould so close and fast together, besides the natu-

Of clotting ground.

rall

rall ſtrength and hardneſſe of the earth, that without much induſtrious and painefull labour, it is impoſſible to bring it to that fineneſſe of mould which Art and good Husbandry requireth, therefore, as ſoone as you behold thoſe clots and lumps to lie undiſſevered and unbroken, you ſhall forthwith take good ſtrong clotting beetles, or maules made of hard and very ſound wood according to this proportion of this figure.



And with theſe maules or clotting beetles, you ſhall breake all the hard clots and lumpes of earth in peeces even to ſo ſmall duſt, as poſſibly you can; becauſe you are to preſuppoſe, that theſe clots thus hard, rough, & unwilling to be with any meanes digeſted into mould, are either not at all, or elſe very inſufficiently mixed with the Sand, Lime and other meanures: and therfore you muſt rather breake them, that thereby they may mixe, and give eaſie paſſage to the graine, and not like heavie poyſes and dead lumps lie and preſſe down the ſeed ſo that it cannot ſprout.

Another manner of clotting.

But if it ſo fall out that partly by the hardneſſe of the ill earth, partly through the ſeaſon and dryneſſe of the yeere, that theſe clots and lumps of earth will either not be broken at all, or at leaſt ſo inſufficiently that the mould will not be any thing neere ſo fine as you would have it; you ſhal then having done your beſt endevour,

let

let your ground rest till there have falne a good ground shower or two of raine, which may wet the clots through and through; and then the next faire blast, you shall take your clotting beetles, but not those which you worke before in the dry season, but some such lighter, broader and flatter, being made of thick Ash-boords more then a foot square, and above two inches in thicknesse, according to this figure.

And with these flat mallets and beetles, you shall breake all the unbroken clots & lumps of earth which shall trouble or annoy your ground, making your lands as plaine and smooth as is possible, so that the graine may have easie passage forth, which labour as soone as you have finished, you shall then referre the increase and prosperity thereof unto the mercies of God, who no doubt will give his blessings according to thy labour and thankfulnesse.

Of weeding.

As touching the trimming & weeding of this Corn, after it is sprung a foote above the earth, or thereabouts, you shall understand, that these hard barren grounds are very seldome troubled with weeds; for weeds, especially great, strong, and offensive weeds are the vices of rich and fertile soyles; yet, if through the trim-

trimming and making of this earth (which is not commonly seene) you doe perceive any flowres, thystles, or other grosser weeds to spring up, you shall then in the moneth of *May*, with hookes, nippers, and such like tooles, cut them away or pull them up by the roots, which indeed is the better manner of weeding.

Severall seeds severall yeares

Now here is to be understood, that your ground being thus dressed and trimmed as is before shewed, you may very well for the first two yeeres sow Wheate or Rye upon it, but Wheate is the greater profit and more certaine seed; the third yeere bestowing but your fold of Sheepe upon it; that is, measuring it with your sheepe, (for it is to be intended, that in these barren earths sheepe are the greatest stocke of which the Husbandman can be furnished) you may very well sowe it with Barley, and have a fruitfull and plentifull crop thereon; the next three yeeres, you may sow it with Oates, and the seventh yeere you shall sow it with small white Garden-peaſe or beanes, according as you shall finde the strength and goodnesse of the ground; (for Beanes desire somewhat a richer soyle than the Peaſe) then for three or foure yeeres following the seven, you may let it lie at rest for grasse, and doubtlesse it will yeeld you either as good Pasture, or as good Medow as you can reasonably require. And then after the expence of this time, it shall be good that you dresse & order your ground againe in such sort as was formerly declared: and thus you may every yeere dresse one or other peice of ground, till you have gone over all your ground, or at least as much as you shall thinke expedient: and without faile, hee that is Master of the most fruitfullest and richest soyle, shall not boast of any greater increase then you shall, onely you

may

may be a little more; and so shall bee also your commodity, which shall make an amends for your charge; as for your toyles, yours shall be much the lesse, by a just computation; for though you have many labours, yet they are but summer-labours, and neither hurt your owne body, nor your Cattell: whereas the Master of the rich soile is in continuall worke both Winter and Summer, labouring twice so much to confound the superfluous growth of weedes as you doe to beget the increase of Corne; and whereas hee must ever keepe a third or fourth of his Corne-ground without fruite, you shall not keepe any which shall not yeeld you a sufficient commodity.

Now me thinks I heare in this place, to be objected unto mee, that whereas I doe prescribe the sanding of these barren earths with the salt sea-sand, and no other (as it is true, for all other fresh sand is unavaileable) what if the ground doe lie so far within the Land, that there is no salt sand within many score miles of it, how then shall I make good my barren earth; sure to fetch sand so farre, will never equall the cost, or it may bee this experience hath no further limits then to such hard and barren Earths as lie alongst the Sea-coast onely. Objection.

To this I answere, that al-be this salt sea-sand be of infinite good & necessary use, inriching grounds wonderfully much, yet is not this experience of bettering of barren soiles, so strictly bound thereunto, but that without any use of the same, you may make your earth as fruitfull in Corne or Grasse, as hath beene already formerly declared. Answer.

Therefore if your ground lie much within the Land, and farre from the Sea, so that this commodity

of

Ordering earth where ſands wanteth

of ſand is not by any poſſible meanes to be gotten, then you ſhall (having firſt lookt into the nature of your ground, and finding it to be by all characters and tokens a cold, barren, ſtiffe, dry Clay, yeelding nothing but a ſhort moſſie graſſe, without any other burthen at all, as is ſeene upon moſt Plaines, and Downes of this Kingdome) firſt plow it and hacke it as was before ſhewed in the former part of this Chapter, then inſtead of ſanding it, you ſhall lime it, as before ſaid, or rather a little more plentifully, then you ſhall meanure it, after (as at ſeed-time) you ſhall plow it and hacke it againe, then harrow it as before ſaid; then to every aker of ground, you ſhall take two buſhels of very dry bay Salt, and in ſuch manner as you ſowe your Wheate, you ſhall ſowe this Salt upon the ground, then immediately after the ſowing of the Salt, you ſhall ſow your Wheate, which Wheate would bee thus prepared before you ſow it; the day before you are to ſowe your graine, you ſhall take Bay-ſalt and water, and mixing them together make a brine ſo ſtrong that it will beare an Egge, then put the Wheate you are to ſow into that brine, and let it ſteepe therein till the next day, then draine it as cleane as may bee from the brine, and ſo ſowe it, harrow it, clot it, and weed it, as was before declared, and no doubt but you ſhall finde a marvellous great increaſe thereby: for this I can aſſure you, both from a moſt certaine knowledge, and a moſt worthy relation, that a Gentleman buying ſome ſtore of ſeed-Wheate, and inforſt to bring it home by Sea, by ſome caſuall meanes ſome of the ſackes at the unlading fell into the Sea, and were much drencht in the ſalt water, whereat the Gentleman being grieved (as doubting ſome hurt to come to the ſeed) yet inforſt of neceſſity

Sowing of Salt.

The excellency of Salt.

to

to make use thereof, caused all the Wheate which was so wet to be sowne by it selfe in a particular place, and upon the worst ground which he had, (as much despairing in the increase thereof) and it is most infallibly true, that of that wet seed, hee received at least five-fold more profit than of any other, and from thence it came, that this experiment of Brine, and the sowing of salt hath taken place; from which the painfull Husbandman hath found such infinite increase to arise, that the use thereof will never be layed downe in this Kingdome, neither is the thing in it selfe, without good and strong probability of much increase and strength for the bettering of all manner of earable grounds; for there is nothing which killeth weeds, quicks, and other offences of the ground so much as saltnesse: for what makes your Pigeons dung and your Pullens dung to bee better for earable grounds then any other dung or meanure whatsoever, but by reason of the saltnesse thereof, by which saltnesse also, you may judge the strength and heate thereof, insomuch that the proper taste of fire, or any hot thing is ever salt; also wee say in Philosophy, that blood which carrieth the vitall heate and warmth of the body, is in taste salt, and so a nourisher, maintainer, and increaser of all the strength and vigour of the inward faculties; whereas Fleame, Choller, and Melancholly, which are the hurts and confounders of the vitall spirits; the first is in taste sweete; the second bitter; and the last of an earthy and dry taste, full of much loathsomenesse.

Of steeping Seed in brine.

Now againe you shall understand, that as you thus wet or steepe your Wheat seed, so you may also steepe any other seed, as Barley, Oates, Beanes, Pease, Lupins,

Fetches, and ſuch like; of which, your Beanes, Peaſe, and Lupins, you may ſteepe more than any of the reſt, and your Oates the leaſt.

As touching Rye, it ſhall be good not to ſteepe it all, for it is a great enemy to all manner of wet and moyſture, in ſo much, that the curious Husbandman will forbeare to ſow it in any great ſhower of raine, bearing in his mind this ancient adage or ſaying, that *Rye will drownd in the Hopper:* as on the contrary part, *Wheate would bee ſowen ſo moyſt, that it might ſticke to the Hopper*; yet notwithſtanding, when you doe ſow Rye in any of theſe In-land and cold barren Countries, where ſand is not to bee gotten, you ſhall not by any meanes omit the ſowing of your ſalt before, for it is nothing neere ſo moyſt as it is warme and comfortable.

CHAP. 3.

Of the Ordering, Tilling, and Dreſſing of all rough barren Clayes, whether ſimple or compound, being laden and overrunne with Gorſe, Broome, and ſuch like.

NExt unto theſe plaine barren earths, which by reaſon of their heights are ſubject in the Winter time to all manner of cold, froſts, ſtormes, tempeſts, blaſts, and winds, which are the perfect hinderers of all increaſe and growth: and in the Summer time to all hot ſcorchings, ſcaldings, and fiery reflections of the Sunne, which on the contrary part, burneth and withereth away, that little ſeemeth increaſe which appeareth above the earth: I will place that barren Clay, whether it be mixt or unmixt, which lying not ſo high, and being ſubject unto thoſe hurts and offences, ſeemeth to bee a little more fruitfull, yet

yet either by the extreame cold moyſture thereof, or the ſtony hardneſſe, and other malignant qualities is no leſſe barren than that of which I haye formerly written, which indeed is that barren and vile ſoile, which will neither beare Corne nor Graſſe, but is onely over-run and quite covered over with great, thicke, and tall buſhes of Gorſe or Furs, which is a moſt ſharp, woody and groſſe weed, ſo full of prickes, that neither Horſe, Beaſt, Sheepe, nor Goates dare thruſt their noſes to the ground to gather up that little poore Graſſe which groweth thereon: And al-be theſe Gorſe or Furres, are one way a little commodity to the needfull Husbandman, in being a reaſonable good fuell, either for baking, brewing, or diverſe other ſudden and neceſſary uſes; yet, in as much as the profit being compared with the great quantity of earth which they cover and deſtroy, and which with good husbandry might be brought to great fruitfulneſſe, is indeed no profit at all; it ſhall not be amiſſe for every good Husband-man that is peſtered and over-laden with ſuch ground, to ſeeke by way of good Husbandry how to reduce and bring it to that perfection and excellency which may bee beſt for his owne particular commodity, and the generall good of the Kingdome wherein he liveth.

Then is there another kinde of ſoile which is nothing at all differing from this, but is every way as barren and ſterile, which is that ground which is overrunne with Broome (which is as noyſome a weed as the former) and though it have not ſuch ſharpe prickles as the other, whereby to hinder the grazing of Cattell; yet doth it grow ſo cloſe and thicke together, and is naturally ſo poyſonous and offenſive to graſſe, that

you shall seldome see any grow where this Broome prospereth; besides the bitternesse thereof is so unpleasant and distastfull to all kinde of Cattell, that not any will ever crop or bite upon the same, only it is of some necessary use for the poore Husbandman, in respect that it serveth him both for fuell; for thatching and the covering of his houses, (being for that purpose, of all, the longest lasting) and also for the making of Beesomes for cleansing of the House & Barnes, or else for sale and commodity in the Market; all which profits (as before I said) being compared with the losse of the ground, and the goodnesse that might be reaped from the same, are indeed truely no profits but hinderances.

Destroying of Weeds.

Therefore I would wish every man that is Master of such grounds, whether they be over-run with Gorse, Furres, Broome, or any such kinde of grosse, woody, or substantiall weed: first, to cut up the weed (of what sort soever it be) whether Gorse, Furres, or Broome) as close and neere unto the ground as you can possibly, and then making up them into sheafes or bigge faggots, carry them home and stacke them up very dry, so as no raine may enter or pierce into them, for the smallest wet will rot and consume them to dust and filthinesse; which done, you shall make Labourers with hacks, picks, and such like tooles, to stubbe up all the Rootes which you left in the ground, even to the very bottome of the same; and these rootes you shall bee very carefull to have stubbed up exceeding cleane, by no meanes leaving (so neere as you can) any part or parcell of the rootes behind you; then those rootes thus stubbed up, you shall diligently gather together into little heapes as bigge as Moule-

hils, and place them upon the ground a pretty distance one from another, and so let them lie till the Sunne and winde have dried them: for it is to be intended, that this labour must begin about the latter end of *April*, and beginning of *May*.

Then so soone as you finde these rootes are thoroughly dried, you shall pile them handsomely together, laying them a little hollow one from another, and then with a hacke cut up some of the same earth, and therewithall cover all the rootes quite over, onely leaving a vent-hole at the toppe, and on one side, and so let the hilles rest two or three daies, till the earth be a little parcht and dried, then take fire and some other light dry fuell which is apteſt to blaze, and with the same kindle every hill, not leaving them till you see them perfectly on fire: which done, let them burne both day and night, till the substance being wholly consumed, the fire goe out of it owne selfe, and this in some Countries is called the *Burning of Baite*. Burning of baite.

Now as soone as the fire hath beene extinguished for two or three daies, you shall then come, and with shovels (and beetles to breake the hard burnt earth in pieces) you shall spread all the ashes cleane over the ground; which done, you shall with a very long plow teare up the earth into great and deepe furrowes, and divide it into Lands, as you shall thinke meete and convenient, laying them higher, or flatter, as you shall have occasion, and as the ground lyeth more or lesse within the danger of water, whether it bee the over-flowing of some neere neighbouring Brookes or Rivers, or else other standing Water occasioned by Raine & extraordinary Showers, which must be carefully lookt unto, because all over-flowes & inundati- Breaking of the burnt earth. Causes of unfruitfulnesse.

on of water, is a mighty destroyer and consumer of graine: but these barren grounds of which I now write are very seldome oppreſt with water; for most commonly they lie so high, that the continuall dryneſſe thereof, is a strong occasion of the much unfruitfulneſſe. After you have thus burnt your baite, and plowed up your ground, you shall then with your hackes hacke it into small picces, in such manner as was declared in the former chapter; then you shall (if the Sea be any thing neere you) sand it with salt sand (as before said) then lime it, and after, meanure it, either with Oxe-dung, Horse-dung, rotten Straw, mudde of Ponds and Ditches, the spiteling of House-floores, or sweepings of Channels and Streets, or such like, or for want of all these in case you dwell neere unto the Sea-coast (where meanure for the most part is in greatest scarcity, and the hardest to bee come by) you shall gather from the bottome of the Rockes (where the leydge of the sea continually beareth) a certaine black weed, which they call Hemp-weed, having great broad leaves, and growing in great abundance, in thicke tufts, and hanging together like Peaſe-straw; and with these weeds, you shall cover your lands all over of a pretty good thickneſſe, and then forthwith you shall plow it againe somewhat deeper, and with somewhat greater furrowes then before, raising up the new quicke earth to intermingle and mixe with those meanures and helpes which you had formerly prepared and laid upon the ground; then shall you againe hacke it and harrow it; then shall you take Pigeons-dung, or Pullens-dung (that is, any kind of land Foule whatsoever, but by no meanes any water-fowle) or Pigeons dung and Pullens-dung mixt together, and allowing to every Acre two or three

An excellent meanure.

Of Plowing.

Of divers meanures.

bushels

bushels thereof, which is the true quantity of seed proportioned for the some, and this dung being broken & masht into small pieces, you shall put into your Sydlop or Hopper, and in the same manner as you sow your Corne, you shall sowe this dung upon the ground; and then immediately after it, you shall sow your Wheate either steept in brine, or else salt Sea-water, or unsteept, as you shall thinke good, but in case you can neither get salt sand nor Sea-rocke-weedes, then you shall by no meanes omit the steeping of your Seede; neither shall you faile before you sow your Seed, to mixe with your Pigeons and Pullens dung, a full equall part of Bay-salt well dried and broke, and so sowen with the dung upon the Land, and then the Seed after it; which done, you shall harrow it againe, clot it, sleight it, and smooth it, in such sort as was formerly declared in the former Chapter, for these labours have no alterations, but must in all points bee done as was before set downe. Mixture of measures.

Now touching the weeding of this earth, after the Corne beginneth to grow above the ground, there is no feare to be had either of Thistles, Tares, Cockles, Darnell, Dockes, and such like strong weeds, which indeed are the issues of good grounds ill ordered and handled: but the weeds which you shall most feare in this place, is young Gorse, or Furs, or else young Broome, which are very apt to grow from the least part or parcell of roots that shall be left behinde; nay the very nature of those barren earths is such, that of its own accord it will bring forth those weeds, the cold sharpnesse of the aire mixing with the sterility and roughnes of the earth, being the cause that it wil give life to no other better plants; therefore so soone as you shall Of weeding.

shall behold any of them to appeare above the earth, though they be not halfe a finger high, you shall prefently with all diligence, pull them up by the roots and caſt them away, or lay them in heapes that they may be afterwards burnt, and the aſhes ſprinkled upon the ground: and herein is to be obſerved, that the younger and the ſooner that you doe pull up theſe weeds, the better it is, and the eaſilier they will come from the earth, and the ſooner be deſtroyed: for all thoſe mixtures wherewith already you have beene taught to mixe your earth, are in themſelves ſuch naturall enemies to all theſe kind of barren weeds, that ſhould you omit the manuall labour of deſtroying them (which no good husband willingly will doe) yet in time the earth of it ſelfe, and the often plowing of the ſame would leave no ſuch offence of weeds or other growths which might hinder the Corne.

Time for weeding.

Now touching the beſt time when to pull away theſe weeds, though generally it muſt be done aſſoone as they doe appeare above the ground; yet it ſhall not be amiſſe for you to deferre the work till after a ſhower of raine, and then immediately after the ground is wet (and ſo by that meanes more apt and willing to open and forſake the roots faſtned within it) you ſhall with all diligence pull them out of the ground, and deſtroy them: neither ſhall you pull them out of the ground with your hands onely; for the Goſſe have exceeding ſharp prickes, ſo that with your naked hands you are not able to touch them, and to arme your hands, againſt them, with ſtrong thicke gloves, would be too boyſterous and cumberſome, ſo that ſometimes you might either miſſe the weeds, and pull up the Corne; or elſe pull up the Corne and weedes both together; therefore to prevent all theſe caſualties

or

or hinderances, you shall take a paire of long small wooden Nippers, made after the forme of this figure.

And with these you shall pull the weeds out of the ground, and cast them into the furrows by the sides of the Lands, till your daies worke be finished, and then with a rake you shall rake them together, and so lay them in heapes, to dry and wither, in more convenient places, that when time shall serve, you may burne them, and use them, as was before declared.

Gathering of stones.

Lastly you shall have great respect, that if this ground bee very much troubled with loose stones, as flint, pibble, and such like, that then you very carefully get them gathered from the ground, both before and after you have plowed it, and to lay them on heapes in other vacant places, where they may serve for pavings, and such like purposes when time requireth; but if the ground be over-run with great or else small lime-stones, as for the most part these barren grounds are; then shall you with all care garber them up, and lay them in great heapes in some corner of your field where you may make a convenient lime-kilne, and so there burne these stones thus gathered, which will be both an infinit profit, and an infinit ease to the rest of your labours.

CHAP.

CHAP. 4.

Of the Ordering, Tilling, and dreſſing of all rough barren Clayes, whether ſimple or compound, that are over-runne with Whinnes, and ſuch like.

NExt unto this barren Clay which is over-run with Furres, Brooms, and ſuch like, I will place that barren and unfertile earth, being alſo a Clay, whether ſimple or compound, which is over-runne onely with Whinnes; and indeed bearing little or no other burthen, or if it doe beare any other burthen, as ſome little ſhort moſſie graſſe, yet is that graſſe ſo covered over with theſe ſharpe Whinnes, that not any beaſt dare put his noſe to the ground, or bite upon the ſames; and indeed, this kinde of earth is not any whit at all leſſe barren than thoſe of which I have already written: but rather more, in that the maligrant qualities thereof are not ſo ſoone corrected, nor yet the vertues ſo ſoone reſtored.

What whinnes are.

Whinnes are a certaine kinde of rough dry weeds, which grow buſhy and thicke together, very ſhort, and cloſe unto the ground, being of a darke browne colour, and of crooked growth, thicke and confuſed, and full of knots, and thoſe knots armed with hard long ſharpe prickes, like thornes or bryars, they have little browne leaves which ſhadow the prickes, and doe wind their branches ſo one into another, that they can hardly be ſeparated, yet is their growth at any time little more than an handfull above the earth, onely they ſpread exceedingly, and will runne and cover over a whole field, choaking up all ſorts of good plants

what-

whatsoever, and turning the best grasse that is to mosse and filthinesse, whereforeif at any time you be Master of any such naughty and barren ground, and would have it reduced unto goodnesse and fertility, you shall first take a fine thinne paring-shovell made of the best yron, and well steeled, and hardened round about the edges according to the forme of this Figure following.

And with this Paring-shovell, you shall first pare up all the upper swarth of the ground, about two inches, or an inch and a halfe thicke at the least, and every paring would be some three foot in length at the least, and so broad as the shovell will conveniently give it leave, and this swarth thus pared up, you shall first turne the Whinny or grasse side downeward, and the earth-side upward, and so let it lie two or three daies in the Sunne to drie (for this worke is intended to begin in the moneth of *May*) and when that side is well dried, you shall turne the other side, and dry it also, then when all the swarth is dried, you shall gather sixe or seven pieces together, and turning the Whinny or Grasse side inward, and the earth side outward, you shall make round, hollow little hils thereof, much what according to the fashion of this Figure following.

And

And the inward hollowneſſe like unto the hollowneſſe of an Oven, but much leſſe in compaſſe, which done, you ſhall fill the hollowneſſe with dry chips, or ſmall ſtickes, or Furres and Straw mixed together, which you ſhall putch at the venthole, which ſhall be left on one ſide of the hill, and kindling it with fire, you ſhall burne all that ſwarth in ſuch ſort as you burnt the rootes of your Furres and Broome before; for this is alſo called a burning of Baine, as well as the former; for it is a moſt principall nourriſher of the earth, and a very ſudden deſtroyer of all malignant weeds whatſoever.

Breaking of Baites.

After the burning of your hils, as ſoone as the fire is utterly quenched and gone out, and no heate at all left in the hilles, you ſhall then with clotting beetles beate them all downe to duſt, and then with ſhovels you ſhall ſpread the aſhes quite over all the ground, as was before declared in the former chapter: and herein is to be noted, that you muſt place theſe hils as thicke and cloſe together as by any meanes poſſibly you can, making your hils ſo much the leſſe and lower, that

that they may ſtand thicker and neerer together, and ſo cover more ground; and thereby the heate and ſtrength of the fire to diſperſe it ſelfe over all that piece of ground; for the fire burning upon the ground, doth as much good for the inriching of the earth, and deſtroying of the weeds, as the aſhes doth which are ſpread upon the ſame.

Now after your bayte is in this manner burned and ſpread, you ſhall then (as was before ſhewed) plow up your ground in good large furrowes, then hacke it very ſmall, ſand it, lime it, and meanure it; and of all meanures, there is not any better for this ground then Oxe-dung and aſhes well mixt together; of which aſhes, thoſe of Beane-ſtraw, Peaſe-ſtraw, or any other ſtraw, are beſt; and thoſe of Wood or Ferne next, thoſe of Char-coale next, and thoſe of Sea-coale or Pit-coale are the worſt of all. Swines dung is not much amiſſe for this ground; for though it be a great breeder of weedes and thyſtles in good or fertile grounds, yet in this cold, hard and barren earth it worketh no ſuch effect, but is a great comforter, and warme moiſtner of the ſame. Plowing.

After you have thus made your ground, as ſoone as Wheate ſeed-time commeth, which is the latter end of *September*, and beginning of *October*, you ſhall then with great care plow over your ground againe, and take great reſpect that you turne up your furrowes much deeper than before, and that for two ſpeciall cauſes; the firſt, that the new earth may the better mixe with the old earth, and thoſe helpes that are added thereunto: and ſecondly, that you may be ſure to teare up the roote of all the Whinnes from the very bottome of the earth, not ſuffering any part of them to remaine behind: and for this purpoſe it ſhall

not

not bee amisse to have an idle Boy or two to follow your Plow, and to gather away all the roots that shall be torne up, or any way else left bare above ground, which roots shall be laid on heapes in convenient places, and then after burnt, and the ashes thereof spread upon the ground, which will be a very great comfort unto the seed, being a speedy helpe unto the sprouting thereof, and a very warme comforter of the roote after the stemme is spindled above ground, for in these cold barren earths, nothing doth so much spoile and slay the Corne, as the dead coldnesse which lieth at the roote thereof, for in many of these unfertil places you shall see Corne at the first sowing (whilest there is little strength in the ground) sprout in great abundance, promising much hope of the profit, but when it should spindle and come to much better perfection, that poore strength being spent and consumed, and the cold and drynesse of the soyle having at more overcome all matter of comfort, then presently you shall see the blade of the Corne turne yellow, the eare or stalke to wither, and either put forth no eare at all, or else a very poore little empty one, being laden with nothing but a most drie chaffie huske without substance. But to come againe to our purpose, after you have thus plowed up your ground the second time, you shall then hacke it againe, and harrow it, as was declared in the other former Chapters: then you shall take your seed-Wheate which hath beene steept either in brine or Sea-water, and to every bushell of that seed, you shall adde a bushell of Bay-salt, and mixe them very well together in your Hopper or Sydlop, and so sow them together upon the grounds, observing to double your casts so oft, that you may not faile to cast that true quantity of seed into the earth which o-

ther-

therwiſe you would have done if ſo be there had been no mixture at all, for to doe otherwiſe were to deceive the ground, and a handfull of ſeed ſo ſaved, would be the loſſe of a pecke in the time of Harveſt; therefore have great reſpect that your ground have his due, for it is no more coſt, though it be a little labour.

When your ſeed is ſowne, you ſhall harrow it againe the ſecond time, clot it, ſmooth it, and ſleight it, as was before declared in the former Chapters. Weeding.

As touching the weeding of this ground, it is the leaſt labour of all other, for the earth being ſo corrected as is before ſhewed, it will naturally of it ſelfe put forth no weeds, eſpecially if you remember to plow it deepe, and be ſure to teare up and gather away all the quicke roots, otherwiſe if that labour be any thing neglected, then will it put forth both Whinnes, & great ſtore of other rough weeds; which as ſoone as you ſhal perceive to appeare, you ſhall preſently with your wooden Nippers pull them up by the roots, as was at large declared in the foregoing Chapter. Harrowing.

Now for the generall profit of this ground thus made and prepared, it is the ſame that the two former are, that is to ſay, it will beare you good and ſufficient Wheate, in plentifull abundance for the ſpace of two or three yeeres, then Barley a yeere after; then Oates three yeere together after the Barley; and Peaſe or Beanes a yeere after the Oates; then laſtly, very good Meadow or Paſture, for the ſpace of three or foure yeares after, and then you ſhall beginne and dreſſe it againe, as was formerly declared. Profits.

CHAP.

CHAP. 3.

Of the Ordering, Tilling, and Dreſſing of all barren Clayes, whether ſimple or elſe compound, which are over-run with Ling, or Heath.

THere followeth now ſucceſſively, another ſort of barren earth; which indeed is much more ſterile and barren than any of the other formerly written upon, becauſe they, out of their owne natures, doe beare a certaine kinde of Graſſe or foode which will relieve ordinary, hard, ſtore-cattell, whether it be ſheepe, Goates, or young beaſts. But this earth of which I am now to intreate, bearing no Graſſe at all, but onely a vilde, filthy, blacke, browne weede, which we call Ling or Heath, the tender tops whereof Cattell and wilde Deere will ſometimes crop, yet it is to them but little reliefe, and onely maintaineth life and no more. Now al-be ſome may object unto me, that this kinde of ſoile is ever a ſandy ſoile and no clay, as may be ſeene in moſt Chaſes, Forreſts, and Downes: yet I anſwere, that al-be it hold ſo in generall; yet there are divers clayes, eſpecially in Mountainous Countries, that are peſtered with theſe kinde of weedes, as may be ſeene in the North and North-weſt parts of *Devon-ſhire*, in ſome parts of *Corne-wall*, and in many parts both of North and South *Wales*; and theſe clay-grounds which are thus offended with theſe weedes of Ling or Heath, are much more barren and unfruitfull than the ſands, becauſe of their much more coldneſſe; yet thoſe clayes which are mixed with either blacke ſand, dun ſand, or yellow ſand, and over-runne thus with Heath or Lyng, are the moſt barren of all: to make any further deſcription of this

Heath

Heath or Lyng, being a thing ſo notoriouſly knowne over all this Kingdome, I hold it meerely needleſſe, onely to ſay it is a rough browne weede, ſhooting out abundance of ſtalkes from one roote, with little darke leaves, and flowers on the toppe, of a pale reddiſh colour, much inclining unto Peach-colour at the firſt, but being full blowne, they are then a little more whitiſh.

You therefore that have any ſuch ground, and deſire to bring it to fruitfulneſſe, and the bearing of good Corne and Graſſe in a reaſonable abundance; you ſhall firſt with ſythes or ſharpe hookes (but old ſythes are the better) cut downe all the heath, or Lyng which groweth upon the earth you intend to convert to goodneſſe, ſo neere the ground as poſſibly you can; then when it is cut downe (which would ever be at the beginning of the Moneth of *May*) you ſhall let it lie upon the ground, daily toſſing and turning it till it become very dry, then ſpreading it all over the ground, and mixing or covering it with dry ſtraw of any kind whatſoever, you ſhall preſently ſet it on fire in ſo many ſeverall corners of the field, that all the ſeverall fires in the end may meete in one point, and not leave any part of the mowen Heath or Lyng unburnt, or any part of the ground unſcorched; after this is done, and the ground cooled, you ſhall with your flat clotting beetles beate the aſhes, hard into the ground, then you ſhall take a ſtrong plow, with a broad-winged ſhare, and an even colture, and you ſhall plow up all this ground thus burnt in every large and deepe furrowes, by no meanes picking out any of the quick roots which ſhall remaine in the furrowes ſo turned up, but letting them reſt in the earth ſtill, then with your hacks, and the help of your yron paring-ſhovell, you ſhall cut up the fur-

Deſtroying of Heath.

rowes, formerly turned up, into ſhort pieces of three foot, or three foot and a halfe long, and ſome leſſe, as occaſion ſhall ſerve; then with theſe pieces, you ſhall build little hollow hils, ſuch as in the former Chapter you made of the upper ſwarth of the ground onely; and then filling the hollowneſſe with dry heath, and dry ſtraw mixt together, you ſhall ſet every hill on fire, & ſo burne the very ſubſtance of the earth into aſhes, which will ſoone bee done by reaſon of the infinite number of rootes and ſmall ſtrings which lie mixt in the earth, and the dryneſſe thereof occaſioned by the former burning: And this is another kind of burning of Baite much differing from all the former, and yet to as great end and profit as any whatſoever, and theſe hils muſt as the former, be placed one as neere another as is poſſible, ſo as they may ſpread and cover over the greateſt part of the ground, and leaving no more then a good reaſonable path to paſſe between hill and hill.

Another burning of baite.

Now as ſoone as you have thus burned all your Baite, and that your hills are cold, you ſhall then as was before ſhewed in the former Chapters, with beetles and ſhovells breake down the hils, and ſpread the earth and aſhes over all the ground; which done, you ſhall ſand it (if the ſituation of the ground bee anſwerable thereunto) and lime it in ſuch ſort as was ſhewed in the ſecond Chapter; then when it is limed, and the Lime equally ſpread, not more in one place than in another, you ſhall then meanure it with the beſt meanure you can provide, of which there is none better or more proper for this ground then mans ordure, and the rubbiſh, ſweepings, parings and ſpitlings of houſes mixt together, or for want of this (becauſe it may not be in ſo great plenty as

other

other meanures) you may take either old Oxe-dung, or Horſe-dung; or for want of them; the old rotten and mouldy ſtaddles or bottomes of Corne-ſtackes, or reeds; eſpecially Peaſe-ſtacks, or Beane-ſtackes, provided that it be thorowly rotten, for the leſſe rotten it is, the worſe it is: Alſo the ſcowrings of common ſewers, and eſpecially thoſe through which much of mans urin doth paſſe, is a moſt wonderfull and beneficiall meanure for theſe grounds, ſo are alſo the ſcowrings of ſinkes and channels which come from kitchins and waſh-houſes; where great ſtore of brine and ſalt broth is ſhed, and other greaſie, fat and putrified ſubſtances, as alſo abundance of ſope-ſuds, and buck-aſhes, and other ſope and lee waſhings, then which there is no better meanure that can bee uſed for theſe kind of grounds.

After your ground is thus perfectly made and meanured, and that Wheat ſeed time doth draw on, which (as before was ſhewed) is ever at the latter end of *September*, you ſhall then plow up your ground againe in that manner as was ſhewed for the former earths; to wit, much deeper than before: for you are to underſtand, that this ground being dreſt as is before declared, there will remaine nothing of the furrowes which were firſt plowed up but the aſhes, which being covered with ſand, lime, and meanure, the earth will lie plaine and levell, ſo that of neceſſity you muſt raiſe up new furrowes of new earth, which being done, you ſhall then with your hacks, cut all the new earth into very ſmall pieces; mixing them well with the other mould made of ſand, lime, meanure and aſhes, then as was before ſaid, you ſhall harrow it to make the mixture ſo much the better, and the mould ſo much

the finer;) and then if it have beene sanded, you may sow your Seed whether simply of it selfe, without any doubt of the plentifull increase thereof; but if it have not been sanded, then as in the fore-going Chapter, you shall not onely steepe your seed in brine (as before showed) but also you shall mixe your seed with bay-salt, and so sowe it into the ground; or if at the time of sowing (after it is plowed, hackt, and harrowed) you bestow either Pigeons-dung, or Pullens-dung, or Sheeps-dung upon the land, it will be much better, for the Corne will give a much greater increase. Now as soone as your Land is sowne, you shall then forthwith harrow it againe and cover the seed very close, then you shall clot it, smooth it, and sleight it (as was before showed).

Of Weeding. As touching the weeding and clensing of this ground after the Corne is sprung up, you shall understand that there is great care to be had thereunto, for this ground is much subject into weedes, and those of the worst kindes; for although for the most part it will be free from all manner of soft and tender weedes, as thistles, cockle, darnell, docke, dockes, rape, and such like herball stuffe; yet is it much subject to twitch bryar, which grow at both ends, Hyng, Wild-time, and such like, any of which as soone as you shall see appeare or peepe above the earth, you shall presently with your Nippers pull them up by the rootes, and not suffer them in any wise to looke a hand fulla above the ground, for if you doe, this is hard matter, for their rootes is so large and fast fixt in the mould, that you can by no meanes pull them away without great toile and hurt to the graine, pulling up with them all such seeds of Corne, as shall then fixed set on about them, for

any other weake and superfluous things which shall grow from the Land; you may with ordinary weeding-hookes cut them away; as for long Grasse, whether it be soft or sedgy; or any other such like stuffe, you shall not stirre it but let it grow, for it keepeth warme the rootes of your Corne, and giveth nourishment and increase thereunto: Now for the profit of this soile thus ordered and husbanded, it is equall with any of the former, and will beare Wheate very plentifully for the space of the three first yeeres; good Barley the fourth yeere, with the helpe of the sheepe-fold (as was before-said) and good Oates the fifth, sixth and seventh yeares; and very good small Pease the eighth yeere (for Beanes this soyle will very hardly beare at all) and the ninth, tenth, and eleventh yeere it will beare very good Meadow (though not altogether very fine pure Grasse, yet very good feeding and wholesome Grasse) or so good Pasture as a man can reasonably require for any holding Cattell whatsoever; nay, it will also indifferently well feed, and fat Cattell, though peradventure it requireth a little longer time than other finer grounds will.

CHAP. 6.

Of the Ordering, Tilling, and Dressing of all plaine simple barren Sands, bearing nothing but a short mossie Grasse.

HAving thus (in as large manner as I hope shall be needfull for any judiciall or indifferent Reader) written of the Natures, Orderings, Plowings, & Dressings of all manner of barren and unfruitfull Clayes, whether they bee simple of themselves, or else com-

pounded with other earths, as ſands, chalkes, gravels, and ſuch like; ſhewing by thoſe naturall burthens which continually of their owne accords, they produce (which indeed is the eaſieſt and ſafeſt way of knowledge) how to amend and better them and bring them to that perfection of fruitfulneſſe, that the beſt earth ſhall but in a very ſmall degree exceede them: nay, hardly any thing at all, except in the ſaving of a little charge and ſome labour, without which nothing is to be obtained by the Husbandman; neither is this charge or labour thus beſtowed on theſe barren grounds to be grutcht at by any honeſt minde; ſince the worſt crop of ten or eleven, will make good his charge and toyle with a reaſonable intereſt; ſo that I make account, nine or ten yeares profits come into his Barnes without purchaſe, for it is to be intended that all theſe earths formerly ſpoken of, are not to be dreſt or to put the Husbandman to any charge more then the firſt yeere of tenne or eleven, for the ſecond yeare hee ſhall as ſoone as hee hath gathered his Wheate off, which will bee in Auguſt, and finiſht other parts of his Harveſt: preſently put his Plow into the ſame Wheate-ground againe and plow it up, hacke it, harrow it, ſow it, harrow it againe, clot it, and weede it, as in the former yeare, and ſo conſequently of all the reſt of the yeares following, whereby you perceive that all labours and charges are ſaved more then once plowing and ſowing.

This then conſidered, it neceſſarily now followeth that I ſpeake of the bettering and bringing into perfection of all manner of barren Sand-grounds, being ſimple of themſelves, without any mixture of other earths, except one and the ſame kind, as Sand with

sand, though peradventure the colours of the sands may alter; as red with white, yellow with blacke, &c. which in as much as the whole substance is sand without any contrary mixture, therefore it may well be called simple and not compound; and of these sands, I purpose to intreate, as formerly I did of the Clayes, that is to say, by their outward faces and Characters, which are those burthens and increases which of their owne proper natures, without any helpe or compulsion of any others, they produce and bring forth into the world.

And first of that naughty cold and barren sand, which lying upon high, stony, and mountainous Rocky places, or else upon lower cold bleake Plaines, subject to the North and North-east winds and tempests, or bordering upon the Seas, doth not bring forth any thing but a short mossie Grasse which the Sunne maketh bitter, and the cold dewes fulsome and such unsavory in taste. If any man then be master of unprofitable & unfruitfull earth, and desire to have it brought to goodnesse and perfection, he shall, first, at the beginning of the Spring, as about midde *April* or earlier, with a strong Plow answerable to the soile, yet somewhat lesse both in timbers and irons then that wherewith you Plow your Clay-grounds: you shall plow so much of that earth up as you may conveniently compasse to sowe and dresse exactly and perfectly; for to undertake more, were to make all unprofitable, and to cast away much labour and charge without any profit; this ground you shall plow of an indifferent depth, though not so deepe as the Clayes, and you shall lay the furrowes though flat, yet close one to another, without leaving any balke betweene, but plowing all very cleane; yet not so

Plowing.

very cleane and close together, that you may lay the greene swarth to the new plowed or quicke earth; but rather turne one swarth against another, so as the furrowes may lie, and no more but touch the edges one of another: This when you have done, you shall then with your hackes cut and breake all the earth so turned up into very small pieces, and not onely the earth so turned up, but also all other greene swarth which was left unplowed; provided, that before this labour of hacking, you let the ground lie certaine daies in the furrowes, that one swarth heating and scalding the other, they may both equally rot and grow mellow together, which once perceived by the blackenesse thereof, you may then at your pleasure hacke it and cut it, as is before declared.

Objection. Now some may in this place object unto me, that this labour of hacking should be needlesse, in as much as all sand grounds whatsoever are out of their owne natures so light, loose, and unwilling to dissever, that this toyle might very well and to good purpose be saved.

Answer. To this I answere, that true it is, most sands in their owne natures are loose, and light, and willing to dissever into fine mold without any extremity, especially rich and fruitfull sands, whose predominent quality of warmth giveth nourishment and increase; but these barren and cold sands, in which is a certaine flegmatique toughnesse and most unwholsome drinesse, are of a cleane contrary nature, and through the stony hardnesse thereof, they are as unapt to breake and dissever as any Clay whatsoever: besides, the swarth being of a tough mossie substance (which ever carrieth a hard strong root answerable with the cold in which

it is ingendered) doth so constantly bind, fetter, & hold the mold together, that it is impossible for any harrow to breake it in pieces, or to gather from it so much mould as may serve to cover the Corne and give it roote when it is sowne into the same; and therefore this worke of hacking is necessary.

When therefore you have thus hackt your Land, and distributed the mould into many small pieces, you shal then with all expedition marle it; which forasmuch as it is no generall or common practise in every part of this Kingdome, I will first tell you what Marle is, and then how to finde it, digge it, and use it for your best behoofe. Of Marling.

Marle, you shall then understand is (according to the definition of Master *Bernard Pallissy*) a naturall and yet an excellent soyle, being an enemy to all weedes that spring up of themselves, and giving a generative vertue to all seeds that are sowne upon the ground, or (for the plaine Husbandmans understanding) it is a certaine rich, stiffe, and tough Clay, of a glewy substance, and not fat or Oylie as some suppose. This marle is in quantity cold and dry and not hot (as some would have it) and it was earth before it came to bee Marle, and being made Marle yet it is but a Clay ground; all Chalke whatsoever was Marle before it was Chalke, and all manner of Stones which are subject unto calcynation or burning, as Lime-stone, Flint, or the like, were first Marle before they were stones, and onely hardned by accident, and so not possible to be dissolved but by fire: as for Marle it selfe when it is a little hardned, it is onely dissolved by frosts and nothing else, and thence is the cause that marle ever worketh better effects the second yeere than the first. ☞ Additions.

This

This marle hath beene made so precious by some writers that it hath beene accounted a fift element, but of this curiosity I will not now dispute.

Touching the complexions or colours of marle, there is some difference, for though all conclude there are foure severall colours in marle, yet one saith, there is a white, a gray or russet, a blacke and yellow; another saith, there is a gray, a blew, a yellow and a red; and a third saith, there is a red and white mixt like unto porphery, and all these may well be reconciled, and the colours may alter according to the Climate and strength of the Sunne: So that by these Characters the colour, the toughnesse, and the loosenesse when it is dried, any man of judgement may easily know marle from any other earth whatsoever. This marle is so rich in it selfe, and so excellent for continuance, that it will maintaine and enrich barren grounds, the worst for ten yeeres, some for a dozen, and some for thirty yeares; yet there is a great respect to bee had in laying of this marle upon the ground, that is to say, that you lay it neither too thicke nor too thinne, that you give it neither too much, nor too little, for any of these extremities are hurtfull; and therefore hold a meane, and see there be an indifferent mixture betweene the marle and the earth, on which it is laid.

For the generall finding out of this marle, there is no better way for readinesse and the saving of charges, then by a great Augure or wimble of Iron made to receive many bits one longer than another, and so wrestingone after another into the ground to draw out the earth, till you finde you are come to the marle, which perceived and an assay taken, you may then digge at your pleasure.

Now

Now for the places moſt likely where to finde this marle, it is commonly found in the loweſt parts of high Countries, neere Lakes and ſmall Brookes, and in the high parts of Low Countries, upon the knols of ſmall hils, or within the clifts of high mountainous bankes, which bound greater Rivers in: to conclude, you ſhall ſeldome finde any of theſe barren ſands but they are either verged about with marle grounds, or if you will beſtow the labour to digge below the ſand, you ſhall not faile to finde either marle or ſome quarry of ſtone, or both; for in ſome places marle lieth very deep, in other ſome places within a ſpades graft of the upper ſwarth of the earth: therefore it ſhall bee good for you to make proofe of all the moſt likely parts of your ground to finde out this marle; and as ſoone as you have found it out, you ſhall with mattockes and ſpades digge it up and carry it to your land, there laying it in bigge round heapes, and ſetting them within a yard or two one of another; thus when you have filled over all your ground (which would bee done with as great ſpeed as might bee, for the ancient cuſtome of this Kingdome was, when any man went about to marle his ground, all his Tenants, Neighbours and friends would come and helpe him to haſten on the worke) you ſhall then ſpread all thoſe heapes, and mixing the Clay well with the ſand, you ſhall lay all ſmooth and levell together; and herein is to bee obſerved, that if the land you thus marle ſhall lye againſt the ſide of any great Hill or Mountaine, whereby there will be much deſcent in the ground, then you ſhall (by all meanes) lay double as much marle, ſand, or other compaſſe on the top of the Hill as on the bottome, becauſe the raine

and

and ſhowers which ſhall fall will ever waſh the fatneſſe of the earth downe to the loweſt parts thereof.

Now in the laying of your marle, you are to hold this obſervation, that if you lay it on hard and binding grounds, then you are to lay it in the beginning of winter, but if on grounds of contrary nature, then it muſt be laid in the ſpring or Summer. Againe, you ſhall obſerve, that if you cannot get any perfect & rich marle, if then you can get of that earth which is called Fullers earth, and where the one is not, commonly ever the other is, then you may uſe it in the ſame manner as you ſhould marle, and it is found to be very neere as profitable.

☞ Additions. Obſervations.

When your ground is thus marled (if you be neere to the Sea-ſide) you ſhall then alſo ſand it with ſalt ſea-ſand, in ſuch ſort as was formerly declared, onely you may forbeare to lay altogether ſo much upon this ſand ground as you did on the Clay ground, becauſe an halfe part is fully ſufficient. If you cannot come by this ſalt-ſand, then inſtead thereof, you ſhall take chalke, if any be to be had neere you, and that you may lay in more plentifull manner then the ſand; and albe it is ſaid, that chalke is a wearer out of the ground, and maketh a rich father, yet a poore ſonne, in this ſoyle it doth not ſo hold, for as it fretteth and waſteth away the goodneſſe that is in Clay grounds, ſo it comforteth and much ſtrengtheneth theſe ſand earths: and this chalke you ſhall lay in the ſame manner as you did your marle, and in the ſame manner ſpread it and levell it; which done, you ſhall then Lime it, as was before ſhewed in the Clay grounds, yet not ſo abundantly, becauſe alſo a halfe part will bee ſufficient; after your Liming, you ſhall then meanure it with the beſt meanure that you have, whether it be

Of Chalke, and the uſe.

dung

dung of Cattell, Horſe, Sheepe, Goats, Straw, or other rubbiſh; and that being done, and ſeed-time drawing on, you ſhall then plow up your ground againe, mixing the new quicke earth and the former ſoiles ſo well together, that there may bee little diſtinguiſhment betweene them; then you ſhall harke it againe, then harrow it, and laſtly, ſow it with good, ſound, and perfect ſeed, and of ſeeds though Wheate will very well grow upon this earth, yet Rye is the more naturall and certaine in the increaſe: yet according to the ſtrength of the ground, you may uſe your diſcretion, obſerving that if you ſow Wheat, then to ſteep it before in brine or ſalt ſea-water, as was before deſcribed; but if you ſow Rye, then you ſhall ſow it ſimply without any helpe, except it be Pigeons-dung, or Bay-ſalt ſimple of it ſelfe, in ſuch manner as hath beene before declared; either ſowing the Salt with the Corne, or before the Corne, as ſhall ſeeme beſt in your owne diſcretion.

After your ſeed is ſowne, you ſhall then harrow it againe, clot it, ſmooth it, and fleight it, as before is ſhewed in the ſecond Chapter, which done (after the Corne is ſhot above the earth) you ſhall then looke to the weeding of it, being ſomewhat a little too much ſubject to certaine particular weedes, as are Hare-bottles, wilde Cheſſe-boles, Gypſie-flowers, and ſuch like, any of which, when you ſee them ſpring up, you ſhall immediately cut them away cloſe by the rootes; as for tearing their rootes out of the ground with your Nippers, it is not much materiall, for the cutting of them is ſufficient, and they will hardly ever againe grow or doe you any hinderance; many other weedes there may grow amongſt theſe which are alſo to bee cut away, but

theſe

theſe are the principall, and of moſt note, wherefore as ſoone as you have cleanſed your lands of theſe and the reſt, you ſhall then referre the further increaſe of your profit unto Gods providence.

The Profits. Laſtly, you ſhall underſtand that this ground being thus plowed, dreſt, and ordered, will without any more dreſſing, but once plowing and ſowing, every yeere beare you good Wheate or good Rye three yeeres together; then good Barley the fourth yeere; good Oates the fifth, ſixth, and ſeventh yeeres; excellent good Lupins the eighth yeare, and very good Meadow or Paſture three or foure yeares after, and then it ſhall be neceſſary to dreſſe it againe in ſuch manner as was before deſcribed.

CHAP. 7.

Of the Plowing, Tilling, Ordering, and Inriching of all barren Sands which are laden and over-runne with Braken, Ferne, or Heath.

NExt unto this plaine, cold, barren ſand, which beareth no other burthen but a ſhort moſſie graſſe; I will place that ſand whith is laden and over-runne with Braken, Ferne, or Heath, as being by many degrees more barren then the former, both in reſpect that it is more looſe, and leſſe ſubſtantiall, as alſo in that it is more drie and harſh, and altogether without nutriment, more then an extreame ſteril coldneſſe, as appeareth by the burthen it bringeth forth, which is Braken or Ferne, a hard, rough, tough weed, good for nothing but to burne, or elſe to litter ſtore beaſts with, for the breeding of meanure; or if you ſtrow it in the high waies where many travellers paſſe,

paſſe, it will alſo there turne to good reaſonable compaſſe.

Of this kind of ground if you be maſter, and would reduce it unto fertility and goodneſſe, you ſhall firſt, whether the Braken be tall and high (as I have ſeene ſome as high as a man on Horſ-backe) or ſhort and low (as indeed moſt commonly theſe barren earths are, for tall Ferne or Braken ſhewes ſome ſtrength in the ground) you ſhall with ſythes firſt mowe it downe in the moneth of *May*, then wither it and dry it upon the ground, and after ſpread it as thin as you can over all the earth you intend to plow; which done, you ſhall bring your Plow and begin to plow the ground after this order: firſt, you ſhall turne up your furrow, and lay it flat to the ground, greene ſwarth againſt greene-ſwarth, then looke how broad your furrow is ſo turned up, or the ground ſo covereth, and juſt ſo much ground you ſhall leave unplowed betweene furrow and furrow, ſo that your land may lie a furrow and a greene balke, a furrow and a greene balke, till you have gone over all the ground, then ſhall you take a paring-ſhovell of yron, and pare up the greene ſwarth of all the balkes betweene the furrowes, at leaſt two inches thicke, and into pieces of two or three foote long, and with theſe pieces of earth, and the dry Ferne which is ſpared up with them, you ſhall make little round hollow Baite-hils, as in the third and fourth Chapter; and theſe hils ſhall be ſet thicke and cloſe over all the ground, and ſo ſet on fire and burnt; then when the fire is extinct, and the hils cold, you ſhall firſt with your hackes cut in pieces all the furrowes that were formerly turned up, and then breake downe the burnt hils, and mixe the aſhes and earth with the other mould very well together; which done, you ſhall

Of deſtroying Braken.

then

Of Marle.

then with all speede marle this earth as sufficiently as possibly may be, not scanting it of marle, but bestowing it very plentifully upon the same, which done, you shall then plow it over againe, & plowing it exceedingly well, not leaving any ground whatsoever unsom up with the plow; for you shall understand that the reason of leaving the former balkes, was that at this second plowing after the marle was spread upon the ground, the new, quicke, & unstirred fresh earth might as well bee stirred up to mixe with the marle, as the other dead earth and ashes formerly received, whereby a fresh comfort should be brought to the ground, and an equall mixture without too much dryneſſe, and this second Ardour or plowing would begin about the latter end of *June*.

Sanding and Liming.

After your ground have beene thus marled, and the second time plowed, you shall then sand it with salt Sea-sand, lime it, and meanure it, as was declared in the fore-going Chapter: and of all meanures for this soyle, there is not any so exceeding good as sheepes meanure, which although of the Husbandman it be esteemed a meanure but of one yeere, yet by experience in this ground it happeneth otherwise, and is as durable, and as long lasting a compasse as any that can be used; and besides it is a great destroyer of thistles, to which this ground is very much subject, because upon the alteration of the ground the Ferne is also naturally apt to alter unto Thystle as wee daily see.

Plowing and sowing.

When your ground is thus dreſt and well ordered, and the seed-time commeth on, you shall then plow it againe, in such manner as you did the second time, that is to say, very deepe, cleane, and after the manner of good Husbandry, without any reſt balkes or other

disor-

disorders: then shall you hacke it very well, then harrow it, and then sow it; but by mine advice, in any case, I would not have you to bestow any Wheat upon this soyle (except it be two or three bushels on the best part thereof for experience sake, or provision for your household) for it is a great enemy unto Wheate, and more than the marle hath no nourishment in it for the same, because all that commeth from the salt sand, lime, and meanure is little enough to take away the naturall sterility of the earth it selfe, and give it strength to beare Rye, which it will doe very plentifully; and therefore I would wish you for the first three yeeres onely, to sow the best Rye you can get into this ground; the fourth yeare to sow Barley; the fift, sixt, and seventh, Oates; and of Oates, the bigge blacke Oare is the best for this ground, maketh the best and kindliest Oatmalt, and feedeth Horse or Cattell the soundest; as also it is of the hardest constitution, and endureth either cold or drinesse much better than either the white Oate, the cut Oate, or any Oate whatsoever; the eight yeare, you shall onely sow Lupins or Fetches, and three yeeres after, you shall let it lie for grasse, and then dresse it againe as before said; for it is to be understood, that in all the following yeeres (after the first yeare) you shall bestow no labour upon this ground more then plowing, sowing, hacking and harrowing at Seed-time onely.

But to proceed to the orderly labour of this ground, after you have sowne your Rye, you shall then harrow it againe, clot it, smooth it, and sleight it, as was before shewed in the second Chapter of this Booke. And although a man would imagine that the sandy loosenesse of this soyle would not neede much

Labours after sowing.

clotting or sleighting of the earth, yet by reason of the mixture thereof with the Marle and meanure, it will so hold and cleave together, that it will aske good strong labour to loosen it and lay it so hollow and smooth as in right it should be.

Weeding. Touching the weeds which are most subject to this soile, they are Thistles, and young Brakes or Ferne which will grow up within the Corne, which before they rise so high as the Corne, and even as it were at the first appearing, you must with your wooden Nippers pull up by the roots, and after take up and lay in some convenient place where they may wither and rot, and so turne to good meanure.

CHAP. 8.

Of the Plowing, Tilling, Ordering, and Inriching of all barren Lands which are laden and over-runne with Twitch, or wild Bryar.

HAving written sufficiently of this hard and barren, waste, wilde, sandy ground, which is over-run with Braken, Ferne, Heath and such like: I will now proceede, and unto it joyne another sand which is much more barren, and that is the sand that bringeth forth nothing but wilde Twitch, Bryars, Thorne-bush, and such like undergrowth of young misliken wood, which never would rise or come to profit, the bitter cold drinesse of the earth wherein it groweth, and the sharpe storme to which the clime is continually subject both day and night, blasting it in such manner that nothing appeareth but starved, withered, and utterly unprofitable burthens, good for nothing but the fire, and

that in a very ſimple ſort. Such ground if you be Maſter of, and would reduce it to profit and fruitfulneſſe, you ſhall firſt with hookes or axes cut up the upper growth thereof; that is, the buſhes, young trees, and ſuch like, them you ſhall alſo ſtubbe up the rootes, not leaving any part of them behind in the earth, carrying away both home to your houſe to be imployed either for fuell, or the mending of the hedges, or ſuch like, as you ſhall have occaſion; this done, you ſhall take a paire of ſtrong yron Harrowes, and with them you ſhall harrow over all earth, tearing up all the Twitch, Bryars, and rough Graſſe ſo by the rootes, that not any part but the bare earth may bee ſeene, and when your Harrowes are cloyed, you ſhall unlade them in ſeverall places of the ground, laying all ſuch rubbiſh of weedes and other ſtuffe, which the Harrowes ſhall gather up, in a little round hill, cloſe up together that they may ſweat, wither and dry, then ſpreading them abroad and mixing them well with drie ſtraw, burne them all over the ground, leaving no part of the weeds or Graſſe unconſumed, then without beating in of the aſhes, you ſhall preſently plow the ground all over very cleane as may be, laying the furrowes as cloſe as you can one to another, and leaving no earth untoucht or untorne up with the Plow, which done, you ſhall immediately hacke it into ſmall pieces, and as you hacke it, you ſhall have idle boyes to goe by the Hackers, to gather away all the rootes which they ſhall looſen or break from the mould, and laying them on heapes in the worſt part of the ground, they ſhall there burne them, and ſpread the aſhes thereon, after your ground is thus harrowed, plowed, and hackt, you ſhall then mucke it, as was formerly ſhewed in the

Deſtroying of Twitch and Bryar.

first chapter, then shall you sand it, lime it, and meanure it as before said.

Meanures.

Now of meanures, which are most proper for this soyle, you shall understand that either Oxe, or Horse meanure, rotten straw or the scouring of yards is very good, provided that with any of these meanures, or all these meanures, you mixe the Broad-leaved weeds, and other greene weedes, which grow in ditches, brookes, ponds or lakes, under Willow trees which with an Iron rake, drag, or such like instrument, you may easily draw upon the banke, and so carry it to your land, and there mingle it with the other meanure, and so let it rot in the ground, this meanure thus mixed is of all other most excellent for this soile, both by the experience of the Ancients who have left it unto memory, as also by daily practice now used in sundry parts of this Kingdome as well because of the temperate coolenesse thereof, which in a kindly manner asswageth the lime and sand, as also through the moysture which distilling through those warme soiles doth quicken the cold starved earth, and giveth a wonderfull increase to the seed that shall be throwne into the same.

Harrowing and other labours.

After your ground is thus sufficiently dreft with these soiles and meanures, you shall then plow it againe the second time; which would be after *Michaelmas*, after the plowing you shall then hacke it againe, and bee sure to mixe the earth and the meanures very well together, then you shall breake it in gentle manner with your Harrows, and then sow it; which done, you shall harrow it againe, but then you shall harrow it much more painefully, and not leave any clots or hard earth unbroken that the Harrow can pull in pieces: as touching

touching the seed which is fittest for this earth, it is the same that is spoken of in the next foregoing chapter: as namely, the best Rie or the best Maslin, which is Rie and Wheate equally mixt together, or if there be two parts Rye, and but one Wheate, the seed will be so much the more certaine and sure holding, and this seed you may sowe on this ground three yeares together, then Barley, then Oates, and so forth, as is formerly writ of the grounds foregoing. After your ground is sowne and harrowed, you shall then clot it, sleight it, and smooth it as you did the other grounds before, and then lastly with your backe Harrowes, that is, with a paire of Harrowes, the teeth turned upward from the ground, and the backe of the Harrow next unto the ground, you shall runne over all the ground and gather from the same all the loose Grasse, Twitch, or other weeds that shall any waies be raised up, and the same so gathered, you shall lay at the Lands end in heapes, either to rot for meanure, or else at the time of the yeere to be burnt for ashes, and sprinkled on the earth the next seed time.

Lastly touching the weeding of this soile, you shall understand the weedes which are most incident thereunto, are all the same your first went about to destroy: as namely, Twitch, rough wild Grasse, and yong woody under growth, besides Thistles, Hare-bottles, and Gipsie flowers; therefore you shall have a great care at the first appearance of the Corne, to see what weedes arise with it, (for these weeds are ever fully as hastie as the Corne) and as soone as you see them appeare, both your selfe and your people with your hands shall pull them up by the rootes, and so weede your Land as you would weed a garden, or Wood- Weeding.

ground. Now if at this first weeding (which will bee at the latter Spring commonly called *Michaelmas*, or the Winter Spring) you happen to omit and let some weeds passe your hands unpulled up (which very well may chance in so great a worke) you shall then the Summer Spring next following (seeing them as hie or peradventure higher than the Corne) with your wooden Nippers pull them up by the rootes from the ground, and so cast them away: As touching the cutting them up close by the ground with ordinary weed-hookes, I doe in no sort allow it, for these kinde of weeds are so apt to grow, and also so swift in growth, that if you cut them never so close in the Spring, yet they will againe overmount the Corne before Harvest, and by reason of their greatnesse, roughnesse, and much hardnesse choake and slay much Corne that shall grow about them, and therefore by all meanes you shall pull these weeds up by the rootes whilst they are tender, (if possibly you can) or otherwise in their stronger growth, sith their sufferance breedeth great losse and destruction.

Chap. 9.

Of the Plowing, Tilling, Ordering, and Inriching of all barren Sands which are over-runne with mores or moris stinking long Grasse.

Vnto these fore-going barren Sands, of which I have already written, I will lastly joyne this last barren Sand; being of all earths, whether clay or sand the most barrennest, and that is that filthy, blacke, morish Sand; which beareth nothing but a stinking, putrified,

triſed Graſſe or Moſſes, or Moſſe and Graſſe mixed together, to which not any Beaſt or Cattell, how courſe or hardly bred ſoever, will at any time lay their mouthes; and this kinde of ground alſo is very much ſubject to mariſhes and quagmires, of which that which is covered with Moſſe, or Graſſe, is the worſt, and that which is tufted above with ruſhes, the beſt and ſooneſt reduced unto goodneſſe; in briefe, all theſe kindes of grounds generally are extreamely moyſt and cold, the ſuperabundance whereof is the occaſion of the infinite ſterility and barrenneſſe of the ſame.

And therefore he that is maſter of ſuch unprofitable earth, & would have it brought to ſome profit or goodneſſe, ſhall firſt conſider the ſituation of the ground, as whether it lie high or low, for ſome of theſe mariſh grounds lie low in the Valleys, ſome on the ſides of Hils, and ſome on the tops of Mountaines; then whether the much moyſtneſſe thereof bee fed by River, Lake or Spring, whoſe veines not having currant paſſage through or upon the earth, ſpreads ſoakingly over all the face thereof, and ſo rotting the mould with too much wette, makes it not onely unpaſſable, but alſo utterly unprofitable for any good burthen.

Now if you finde that this mariſh earth lie in the bottome of low valleys, as it were gerdled about with hils or higher grounds, ſo that beſides the feeding of certaine Springs, Lakes or Rivers, every ſhower of rain or falling of water from higher grounds bringeth to theſe an extraordinary moiſture to maintaine the rottenneſſe, in this caſe this ground is paſt cure for Graſſe or Corne, and would onely be converted and made into a fiſh-pond for the breeding and feeding of fiſh, being a thing

Ground for Fiſh-ponds.

thing no lesse profitable to the Husbandman for keeping his house, and furnishing the market then the best Corne-land he hath; and therefore when he maketh any such pond, he shall first raise up the head thereof in the narrowest part of the ground, and this head by driving in of stakes and piles of rough and hard wood as Elme, Oake, and such like, and by ramming in of the earth hard betweene them, and fodding the same so fast that the mould can by no meanes be worne down or undermined with the water; he shall bring it to as firme earth as is possible, and in the midst of this head he shall place a sluce or flood-gate made of sound and cleane Oke Timber and planket, through which at any time to drayne the Pond when occasion shall serve, and this done, you shall dig the Pond of such depth as the earth conveniently will beare, and casting the earth upon either side; you shall make the bankes as large and strong as the ground requireth, then if any spring which did before feed the earth be left out of the compasse of the pond (because it lieth too high to be brought in) then shall you by drawing gutters or traines from the spring downe to the Pond, bring all the water of the springs into the pond, and so continually feede it with fresh and sweete water. Then storing it with Fish of best esteeme, as *Carpe, Tench, Breame, Pearch*, and such like, and keeping it from weeds, filth and vermine, there is no doubt of the daily profit.

But if this marish and low ground, though it be low and have many springs falling upon it, yet it hath not so extreame low but that there is some River or dry dikes bordering upon it, which lie in a little lower discent, so that except in case of inundation the River and dikes take fire from the moysture of this ground,

but

but where there is any overflowing of waters, there this marish ground muſt needs be drowned, in this caſe this ground can hardly be made for Corne, becauſe every overflow putteth the graine in danger, yet may it be well converted to excellent paſture or meadow, by finding out the heads of the ſprings, and by opening and cleanſing them, and then drawing from thoſe cleanſed heads, narrow draines, or furrowes, through which the waters may paſſe to the neighbour ditches, and ſo bee conveyed downe to the lower Rivers, leaving all the reſt of the ground dry, and ſuffering no moyſtures to paſſe, but what goeth through theſe ſmall deepe channels, then as ſoone as ſummer commeth, and the ground begins to harden, if you ſee any of the water ſtand in any part of the ground, you ſhall forthwith mend the draine, and helpe the water to paſſe away, which done, (as the ground hardeneth) you ſhall with hackes and ſpades lay the ſwarth ſmooth and plaine, and as early in the yeare as you can conveniently, you ſhall ſow upon the ground good ſtore of Hay-ſeeds, and if alſo you doe meanure it with the rotten ſtaddles or bottomes of Hay-ſtackes, it will be much the better, and this ſtaddell you ſhall not ſpread very thicke, but rather of a reaſonable thinneſſe, that it may the ſooner rot and conſume upon the laine.

But if this marish and filthy ground doe not lie ſo low as theſe low valleyes, but rather againſt the tops of hills, you ſhall then firſt open the heads of all the ſprings you can finde, and by ſeverall draines or ſluces, draw all the water into one draine, and ſo carry it away into ſome neighbouring ditch and valley; and theſe draines you ſhall make of a good depth, as at leaſt two foot, or two foot & a halfe, or more, if need require, Draining of wet ground.

require, and then croſſe-wiſe, every way over-thwart the ground, you ſhall draw more ſhallow furrowes, all which ſhall fall into the former deepe draines, and ſo make the ground as conſtant and ſirme as may bee; then having an intent to imploy it for Corne, you ſhall bring your Plow into the ground, being a very ſtrong one, and not much differing in Timber-worke or Irons from that which turneth up the Clay-grounds, and laying before the Plow long wadds or roules of the ſtraw of Lupins, Peaſe, or elſe Fetches, (but Lupines is the beſt), you ſhall turne the furrowes of earth with the Plow upon the wadds, and ſo cover or bury them in the mould, and thus doe unto every furrow, or at leaſt unto moſt of the furrowes you turne up, and ſo let it lie a little time to rot, as by the ſpace of a fortnight or three weekes, in which ſpace, if the ground receive not raine and moyſture enough to rot the ſtraw thus formerly buried, you ſhall then by ſtopping the draines and making the Springs over-flow, gently waſh the ground all over and no more, and then preſently draine it againe; which done, as ſoone as the earth is dry, you ſhall hacke it and breake into ſmall pieces, and then you ſhall alſo Sand it, Lime it, and manure it.

And laſtly, you ſhall marle it, but if no ſalt ſand be to be had, then in ſtead of it, you ſhall chalke it, yet of all thereſt you ſhall take the leaſt part of Chalk.

This done, about the latter end of *July* you ſhall plow up the ground againe with ſomewhat a better and deeper ſtitch then you did before, that if any of the ſtraw be unrotted or unconſumed, it may againe be raiſed up with the new moyſt earth, and ſo made to waſte more ſpeedily, and if at this ſecond carrying you

doe

doe see any great hard clots to rise, then with your hackes you shall breake those hard clots in pieces, laying the Land cleane without clots, weeds, or any other annoyance, and so let it rest till *October*, at which time you shall plow it over againe, hacke it, harrow it, and then sow it with the best seed-wheate; for this soile thus drest and meanured, albeit it be of all other the most barren, yet by reason of this moysture which at pleasure may be put to it, or taken from it, and by the mixture of these comfortable soiles and compasses, it is made as good and fruitfull as any earth whatsoever, and will beare Wheate abundantly for the space of three yeeres together; then good Barley the fourth yeare, with a little helpe of a Sheepfold, or sheepes meanure; then Rye the fifth yeare; Oates the sixth, the seventh and eighth yeares; small Pease, the ninth yeare; good medow or pasture three yeeres following, and then to be new drest againe, as beforesaid.

Now as soone as your seed-wheate is sowne, you shall then harrow the ground againe, and bee sure to cover the Wheate both deepe and close, as for the clots which shall arise from this soile, it shall not matter whether you breake them, or no, for by reason of their moisture, they will be plyant and easie for the wheate to passe thorow, so that you shall not care how rough your land lie, so it lie cleane, and the Corne well covered, but for all other seedes, you shall breake the clots to dust, and lay the land as smooth as may be. Harrowing.

Now for the weeding of this soile, you will not be much troubled therwith, because this ground naturally of it own accord, putteth forth no weeds, more then these which are ingendered by the new made fruitfulnesse Weeding.

fulnesse thereof, and those weeds for the most part are a kind of small sedges, or hollow reed; any of which if you see appeare, or with them any other kinde of weed, you shall at the first appearance, either pull them up by the rootes with your wooden Nippers, or else cut them close by the ground with your weed-hookes.

CHAP. 10.

A generall way for the enriching of any peece of ground, either Clay or Sand, with lesse charge then formerly.

IF the former demonstrations and instructions which I have shewed thee, appeare neither too difficult, or too costly (for now I speake to the plaine, simple, poore Husband-man) and yet thou art master of none but barren earth, then thou shalt by thine owne industry, or the industry of thy children, servants, and such like, or by contracting with Taylors, Botchers, or any poore people that will deserve a penny, gather up, get or buy all the ragges, shreds and base pieces of woollen Cloth whatsoever, which are onely cast out, and fit for nothing but the dung hill, and of these if thou canst conveniently buy a sacke full, or a sackefull and a halfe, it is sufficient for the dressing of an acre of arable ground. These shreds and ragges (torne small) or hackt and hewed into small pieces or bits, thou shalt thinnely spread over the Land before fallowing time, then comming to fallow, plow them all into the ground, and be sure to cover them, then give your land the rest of its orders, as stirring, foyling, ridging, &c. in their due seasons, and after

Ragges of wollen cloth.

after an husbandly manner: then when you come to ſow it, you ſhall take the ſlimy thicke water which commeth from dung-hils; or for want thereof, water in which Cow-dung hath beene ſteeped, and therein you ſhall ſteepe your ſeed-Corne, that is to ſay, if it be Barley, you ſhall ſteepe it for the ſpace of thirty ſix houres, or thereabouts; if it be Wheate, but eighteene houres; and if it be Peaſe, but twelue houres; for Rye or Oates, not at all: and the ſeed thus ſteeped, you ſhall ſow it according to good Husbandry, and there is no doubt of wonderfull increaſe.

Steeping of ſeed-Corne.

Or any pulſe.

There be others which take the ſeed-Corne, & ſteeping it in good ſtore of Cow-dung and water, ſtirre all together for an houre in the morning, and an houre at night, and then being ſetled, draine the water from the ſeede and the dung, and the next morning ſowe the Corne and the dung both together on the land, being ſure not to ſcant the land of ſeed, and no doubt the increaſe will be wonderfull.

Now if this cannot be conueniently done, or that you want dung, if then you take ordinary water, and therein ſteepe your ſeed, it is good alſo, and eſpecially for Barley, as is approued by daily experience.

But now me thinkes I heare the poore man ſay, that here is but one acre dreſt, and that is a ſmall proportion: to this I anſwer, if thou beeſt able but to dreſſe one acre with theſe woollen ragges, thou ſhalt then ſearch amongſt the Horners, Tanners, Lanthorne-makers, and ſuch like, and get all the waſt ſhauings of horne which thou canſt poſſibly compaſſe, and as before of the rags, ſo of theſe a ſacke and a halfe, or two ſacks will dreſſe an acre: theſe ſhauings (which are indeed good for no other uſe) you ſhall ſcatter upon the land as you did the rags, then plow them in after the ſame manner, ſo order

Shauings of horne.

order the ground, ſo ſow, and in the ſame manner ſteepe the ſeed, and queſtionleſſe the increaſe will bee wonderfull great: theſe meanures will laſt five yeeres without any renuing. Now if of theſe you cannot get ſufficient to trimme all your ground, you ſhall then deale with Butchers, Sowſe-women, Slaughter-men, Scullions, and the like; and from theſe you ſhall get all the hoofes you can either of Oxe, Cow, Bull, Calfe, Sheepe, Lambes, Deere, Goates, or any thing that cheweth the cud, and which indeed, if not for this uſe, are otherwiſe utterly caſt away to the dung-hill, and deſpiſed; and theſe hoofes you ſhall cut and hew into ſmall pieces, and ſcatter thicke upon your Land at fallowing time, then plow them in as aforeſaid, and doe in all points as with the other meanures already recited, and ſo ſteepe your ſeed, and there cannot bee a greater inricher of arable ground whatſoever.

Hoofes of cattell.

Now if all theſe will not yet compaſſe your land, you ſhall then ſee what ſope aſhes you can get or buy, for of all meanures there is none more excellent, for beſides it giveth an exceeding ſtrength and fatneſſe to the Land; it alſo killeth all manner of weedes, great and ſmall, as Broome, Gorſe, Whynnes, and the like, and it killeth all manner of Wormes, and venomous creeping things, it is excellent for Woad, and the ground renewed yearely therewith, may bee ſowne continually: theſe ſope-aſhes muſt bee laid on the land after the fallowing, and then ſtirred in, two load thereof will ſerve to dreſſe an Acre: when it is fit for ſeede, the ſeed muſt bee ſteept as aforeſaid, and then ſowne, and the increaſe will quit the charge manifold. Theſe ſope-aſhes are alſo excellent good for Hempe and Flaxe, being thinnely ſowne upon the land,

Of Woad.

land, after is plowed, and immediately before the seed be sowne: But if you have more land to dresse, then you must make use of your owne ordinary meanure, as is Oxe-dung, Horsedung, and the like, which that you may make richer and stronger than otherwise of it owne nature it would be, you shall cause continually to bee throwne upon it all your poudred beefe-broth, and all other salt brothes or brines which shall grow or breed in your house, also all manner of sope-suddes, or other suddes, and washings which shall proceed from the Laundery; and this will so strengthen and inrich your meanure that every loade shall bee worth five of that which wanteth this helpe. There be divers other meanures which doe wonderfully inrich and fatten all manner of barren grounds, as namely the haire of beasts hides (which for the most part Tanners and Glovers doe cast away) this thinnely spread on the land, and plowed in, brings every yeere a fruitefull croppe. Againe, if Braken or Ferne bee layed a foote thicke upon the earth, and then a layer of earth upon it, then another layer of Braken, and another layer of earth, and so layer upon layer till the heape bee as bigge as you intend it, and so left to rot all the Winter following, there cannot bee a better meanure for any arable ground; for you shall understand that the earth will so rot the Braken, and the braken so soake into the earth, that they will become both one rich substance. And herein you shall note, that whensoever you would have any substance (of what condition soever) quickely to rot and turne to meanure, that the onely way is to mixe it with earth, and that will in short space bring it to rottennesse. Now this Braken and earth thus rotted, you shall lay upon your land as you

The inriching of ordinary meanure.

The haire of beasts hides.

Of Braken.

To rot dung quickly.

you doe your ordinary dung of Cattell, and then sow your seed being steept, as aforesaid.

Of Malt-dust. Next, your Malt-dust which is the sprouty corne, smytham, and other excrements of the Malt, is an excellent meanure for arable land, allowing three quarters thereof for an acre, and strowing it upon the land after it is plowed and ready to be sowne.

Of rotten Pilchers and garbage. There is another meanure, which albe it is not plentifull every where, yet in some places it is, and no inferiour to any meanure before spoken of, & that is your rotten Pilchards after the Oyle is taken from them, and the carcasses cast to the dung-hill, this laid on the land, and plowed in, bringeth Corne in great abundance, and no lesse doth the carcasses and garbage of all kind of fish whatsoever, especially of sea-fish.

Of blood offals Lastly, the blood, entrals, and offall of any beast is an excellent meanure for any kind of graine, plant, or tree, but especially for the vine, for to it there is no nourishment of greater force or efficacy: also, if this blood be tempered with Lyme, it is exceeding comfortable for graine, and destroyeth wormes and other creeping things which hurt Corne, onely it must not be applied presently, but suffered for a little time to rot, least the too much heate thereof might scorch and doe hurt to the roote of the Corne: this meanure is to be laid on the earth when you sow it, and so the seed and it harrowed or plowed in together, which done after the order of good workmanship, there is no doubt of the increase.

Chap.

Chap. 11.

How to enrich for Corne, any barren, rough, woody ground being newly ſtubbed up.

IF you have any barren wooddy ground which is newly ſtubbed up, and that you would convert it to arable, you ſhall then take a great quantity of the under-wood, or worſt bruſh-wood which was cut from the ſame, and in the moſt conveniente ſt place in the field, as in the middeſt, or neere thereabout, you ſhall frame it into a broad hollow pyle, and then cover it all over with great ſoddes of earth, which done, ſet fire on it, and leave no part thereof (either wood or earth) unburnt, then take thoſe aſhes and ſpread them all over the field ſo farre forth as you meane to plow up, then with a good ſtrong Plow fallow the ground as deepe as you can, and ſo let it reſt till it bee almoſt *May*, then take either Ferne, Stubble, Straw, Heath, Furres, Sedge, Beane-ſtalkes, or any other waſte growth, take I ſay either any one, or more of theſe, or all together, as you ſtand poſſeſt of them, and burne them to aſhes, and therewith cover your land the ſecond time, and then in Summer ſtirre it, within a Moneth after ſoile it, then at the beginning of Octoober, or a little before, plow it againe, and ſow it with Rye the firſt croppe, and you ſhall ſee the increaſe will bee very plentifull, the next yeere you may ſow it with Wheate, the third yeere with Barley, the fourth yeere with Peaſe, Lupins, Fetches, or any other Pulſe, and then beginne with Wheate againe; for it is credibly ſaid, that this man-

Wood-aſhes.

Aſhes of Ferne Straw, &c.

ner of dreſſing theſe barren, woody grounds, ſhall maintaine and keepe the earth in good heart and ſtrength (in the worſt places) for the ſpace of foure yeares; in that which is any thing reaſonable for the ſpace of ſix yeares; and where there is any ſmall touch of fertility for the ſpace of ſixteene yeeres; of which there are daily experience in *France*, about the forrest of *Ardenn*, and ſome with us here in *England* in many woody places.

CHAP. 12.

The manner of reducing againe, and bringing unto their firſt perfection all ſorts of Grounds which have beene, overflowed, or ſpoyled by ſalt-water, or the Sea-breach, either arable, or paſture, as alſo the enriching or bettering of the ſame.

The difficulty of this labour.

THere is nothing more hard or difficult in all the Art of Husbandry, then this point of which I am now to intreate, as namely, the reducing and bringing unto their firſt perfection all ſorts of grounds which have beene over-flowed or elſe ſpoiled by the Sea-breach, and bringing in of too great abundance of ſalt water, which to ſome men (of little experience, and free from thoſe dangerous troubles) may appeare a matter very ſleight, and the wound moſt eaſie and curable, and the rather becauſe in all my former relations and demonſtrations touching the bettering of every ſeverall ſort of ground, I doe apply as one of my chieſeſt ingrediens or ſimples, by which to cure Barrenneſſe, Salt-weeds, Salt-ſand, Salt-water, Salt-brine, Aſhes, Lime, Chalke, and many other things

The vertues of Salt.

things of ſalt nature, as indeed all meanures & marles whatſoever muſt either have a ſalt quality in them, or they cannot produce fruitfulneſſe) ſo that to argue ſimply from naturall reaſon; if ſalt be the occaſion of fruitfulneſſe and increaſe, then there cannot be much hurt done by theſe over-flowes of the ſalt water; but that it ſhould rather adde a fattening and enriching to the ground then any way to impoveriſh it; and make it incapable of growth or burthen. But experience (which is the beſt Miſtreſſe) ſhewes us the contrary, and there is nothing more noyſome and peſtilent to the earth then the ſuperabundance and too great exceſſe of ſaltneſſe; for according to our old Proverb of *omne nimium*, that too much of every thing is vitious: and as wee ſee in the ſtate of mans body, that your ſtrongeſt poyſons, as *Antimony* or *Stibium*, *Coloquintida*, *Rabarb*, and the like, taken in a moderate nature, are moſt healthfull, and expell all thoſe malignant qualities which offend the body and occaſion ſickneſſe; but taken in the leaſt exceſſe that can be deviſed, they then (out of their vitious and naughty qualities) doe ſuddenly and violenly deſtroy all health, and bring upon the body inevitable death, and mortality; ſo is it with this matter of ſalt, and the body of the earth, for as by the moderate diſtributing thereof, it correcteth all barren quallities, diſperceth cold and naughty vapours, and yeeldeth a kinde of fatneſſe and fruitfulneſſe, whereby the ſeede is made more apt to ſprout, and the ground more ſtrong and able to cheriſh the ſame till it come to perfection, through the ſharpe, warme, and diſperſing quality thereof; ſo being beſtowed in too great abundance and exceſſe, whereby the earth is ſurfeited, and as it were over-

The vices which come from Salt.

The abuſe of Salt in exceſſe.

come and drowned up with too much of this naturall goodneſſe and helpfull quality, then all his proper vertues turne to egregious vices, as his wholſome ſharpneſſe to a fretting, gnawing, and deſtroying greedineſſe; his comfortable warmeneſſe to a conſuming and waſting fierineſſe, and his gentleneſſe in diſperſing, to an infectious and venomous pollution, by the ioynt qualities of all which together, the ground is made neither fitte to receive any thing from the hand of the Husbandman, nor yet to produce or bring forth any thing of it ſelfe, becauſe every good quality is abuſed or expelled, and nothing but unnaturalneſſe and ſterility left; which like a Serpent lodgeth in the ground and will ſuffer no good thing to have ſociety with it; and theſe are the effects and miſchiefes which are occaſioned by theſe Sea-breaches or inundations of the ſalt-water.

Of ſalt moderately uſed.

It is certaine that although in the ſalt marſhes, where the Sea commeth in at certaine times and onely waſheth or ſprinkleth the ground all over and ſo departeth, there is neither want of Graſſe, nor yet complaint of any evill quality in the graſſe, yet it is moſt certaine that no over-flow of ſalt-water how little or moderate ſoever, can be truely laid to bee wholeſome for any kinde of Graſſe ground whatſoever; for Graſſe is compounded of an infinite world of plants and ſimples, and moſt of them of ſeverall natures and qualities, ſo that if it give nourriſhment to one, yet it may deſtroy ten, neither doe I finde it by any of the Ancients ſimply and properly applied unto the Graſſe grounds, but firſt unto the Arable, in which having ſpent its primary or firſt ſtrength upon the ſeed (which is great and greedy devourer of eater up of the ſtrength

No over flow of ſalt water good for graſſe.

and

and fatnesse of the earth) it then prepares and makes the ground more able and fit to bring forth grasse, and that of the best and finest kinde, for although the Masters of the Salt marshes finde a singular and rare profit in those grounds for the feeding, breeding, fatting, and sustaining of their great flockes of sheepe, which upon these salt grounds, they say, will never rot or perish by that universall disease, yet must they not impute that to the great quantity, goodnesse, or any growth in the grasse, but to the salt which they licke up in the grasse, and to the salt quality of the Grasse, which is not onely an antidote or preservative against that noysome and pestilent mortality, but also a delightfull and pleasant food wherein those Cattell take more contentment then in any other thing whatsoever, so that I must necessarily rest upon this conclusion, that as but moderate washing and over-flowing of salt waters are no certaine or particular great helpes unto grasse grounds, especially if they be applied thereunto, and to that purpose simply at the first, without any other preparative or working by a former meanes, as by tillage, digging, delving, or the like; so the exceeding great inundations or Sea-breaches which lie long soaking and sinking into the earth must needs be a certaine, infallible, and almost incurable cause of barrennesse, eating, spoiling, and consuming the very rootes of all manner of plants, trees, and growths, by which the ground is made utterly incapable of generation or bringing forth: and therefore where these great inundations or overflowings cannot bee either prevented or avoyded, but as the seasons of the yeare they doe and must hold their courses, there I would not wish any man to bestow either his labour or his cost, for it is losse of time and losse of substance: but

The grounds of the salt marshes.

A true cause of barrennesse.

Where this annoyance is incurable.

Where it is curable.

where it is to be prevented or avoyded by industry, of that those overflowings or Sea-breaches come and happen by casualty or change, as either by the unnaturalnesse and superabundance of tides being driven in by the violence and impetuousnesse of outragious winds, or by any neglect or breach in the Sea-wall, or other mishaps of the like nature, which happeneth sometimes scarce once in an age, at the most not above once or twice in many yeares; in these cases there is most certaine remedy, and the grounds so spoiled and wasted, may by art and industry bee againe reduced and brought to the former perfection and goodnesse; nay many times amended and freed from many faults and steril qualities, to which it was either naturally addicted, or else by chance and accident grew thereunto, by continuall wearying and imployment, without rest, or refreshing by the artificiall meanes of wholsome manures, or other strengthnings which ought to be applied before those faults grew into extremities.

The manner of the cure.

Now touching the cure of these grounds which are thus worne out, decayed, and made barren by these inundations of salt water, the owner thereof is first to draw into his consideration, that is the malignity and evill quality of the earth is growne by too much fretting, gnawing, and wasting of the salt, so it must be allayed and qualified by a quite contrary condition, which is freshnesse or the contrary then to salt water, must of necessity be fresh water, so that you are to cast about in your judgement, and by the view situation, and levell of the ground (which for the most part can have but little difficulty in it, because these grounds upon which the Sea thus breaketh, must ever be the lowest of all other, so that a true descent coming

One contrary helps another.

ming unto it, and a true ascent comming from it, there is no hardnesse to convey any water course thereunto), looke how to bring a freshnesse which may conquer and overcome this saltnesse, and that must therefore be fresh water, which by channels, ditches, furrows, sluces, & the like, you may bring from any fresh river, spring, pond, or other fresh water course (though removed some distance of miles from the place to which you would convey it) to the very place to which you desire to have it, and with this fresh water you shall wash and gently drowne over so much of your spoiled ground, as you shall be able reasonably to deale with all in other costs and labours for that yeare; and if you have plentifull store of fresh water, then having (as I said) dround it over gently, about 4 inches, or halfe a foote deepe, you shall so let it lie 2 or 3 daies, then draine away that water by the helpe of back ditches, or by sluces made for that purpose, which if the situation of the ground deny you, and that there is no such convenient conveyance, then you shall in the lowest part of the ground (either joyning upon some other spoyled ground, or upon the Sea-wall or banke) place a Coy, which may either cast the water into the other ground, or else over the wall and bank into the sea, and having thus drained away the first water, you shall then open your sluces of fresh water againe, and drowne your ground over the second time, and doe in all things as you did before, and thus according to the plentifulnes of your fresh water, you shall drowne your ground, or at least wash it over with fresh water twice a week before the beginning of the Spring, and if the salt water have lane long, or be but new departed, then you shall use your fresh water for some part of the Spring also.

The watering with fresh water.

How to draine away the fresh water.

How oft to drowne the earth.

Now some may object unto me here (and it is a

Helpes if fresh water be wanting.

Whether brackish water be wholesome.

matter altogether unlikely (that in some of these places where these inundations and breaches are, it is impossible either to finde fresh water, or to bring fresh water unto them, because all the springs for many miles about being made naturally brackish, and the rivers by the infection of the salt tides, having lost the greatest part of their sweete freshnesse; the question now resteth, whether these brackish waters are wholsome for this purpose, I or no? To this I must needs answer, that they cannot in any wise bee good for these spoyled grounds, because the earth naturally is of an attractive and drawing condition, sucking and gathering unto it selfe any thing that is of a sharpe, sweet, or sower taste, and especially saltnesse, so that being covered with those brackish waters, it will draw from them onely their salt (of which it hath too much already) and no part of the freshnesse which should qualifie and amend it: therefore if either your ground be thus situated, or your necessities thus unsupplied, it is better that you rather forbeare this labour of washing or drowning your earth (though it be the first, the speediest, and surest cure of all other) then by watering it with infinite and unwholesome waters, rather increase the mischiefe, than any way delay it.

The first time of plowing, & the observations therein:

After you have watered your ground (if it be a work impossible to be attained unto) or otherwise neglected it (being a thing not possible to be found) you shall then about the latter end of *March* plow up all the ground with a good deepe stitch, turning up a large furrow, and laying it into lands, raise them up as much as you can, and make them round, then looke of what nature or temper the earth is, as whether it bee fine sand, rough gravell, stiffe clay, or a mixt earth, or any of these contraries together: If it be a fine sand, either

How to mixe earths.

white,

white, red, or browne, it matters not whether, then you ſhall take any clay earth which is free from theſe ſalt waſhings, being of a meane or ſmall ſtiffeneſſe, and likewiſe of as meane and little richneſſe, which being digged out of ſome banke, pit, or other place where leaſt loſſe is to be had, you ſhall carry it in tumbrels or carriages to the new plowed ground, and there firſt lay it in heaps as you doe meanure, then after ſpread it all over the land, and being dry, with clotting beetles breake it as ſmall as you can poſſibly, for this hungry clay being of no rich or fat condition, will ſo ſucke and draw the ſalt into it, that it will take away much of the evill quality, and mixing his tough quality with the looſe condition of the ſand, they will both together become apt for fruitfulneſſe and generation.

The mixture for Gravell.

If the ſoyled ground bee a rough hard gravelly earth, then you ſhall mixe or ſpread upon it the beſt and richeſt freſh clay you can get, or if there be any ſuch fruitefulneſſe neere about you, then with a good blew marle, for that is the cooleſt and the freſheſt, and will the ſooneſt draw out the ſalt from the gravell, and give it a new nouriſhment, whereby any ſeed ſhall be fedde and comforted which is caſt into it.

The mixture of Clay.

If the ſpoyled earth be of it owne nature a ſtiffe and tough clay, which is but ſeldome found ſo neere the Sea-ſhore, then after the plowing, you ſhall mixe it, and cover it over with the freſheſt and fineſt ſand that you can poſſibly get, for that will not onely ſeparate the ſalt from the clay, and take away the naturall toughneſſe and ſtiffneſſe of the ſame, which hindereth and ſuffocateth the tender ſproutes, ſo as they cannot eaſily get out of the earth, but alſo by lending a gentle warmth, will aſſwage the cold quality of the clay,

and

and make it bring forth moſt abundantly.

The mixture of mixt earth.

Laſtly, if the ſame ſpoiled earth be of a mixed quality, then you ſhall looke whether it be binding or looſening, if it be binding, then you ſhall mixe or cover it with fine freſh ſand, if looſening, then with a reaſonable rich and tough clay, for ſo you ſhall bring it to an open and comfortable tempter, making it able both to receive, cheriſh and bring forth the ſeede; which before either too much wet, or too much drineſſe did ſtifle and bind up within the clots and mould, ſo as it had no ſtrength to beare himſelfe through the ſame.

The ſecond plowing.

When you have covered your lands with this mixture, you ſhall then plow it over againe before *Midſomer*, turning the new laid earth under the old earth, and as ſoone as that labour is finiſhed, you ſhall then lade forth your meanure or compaſſe unto it, in which you are to have a great care what meanure you elect for this purpoſe, for it is not the richeſt and fatteſt meanure, as your Pigeons-dung, or Pullens-dung, Lime, Chalke, or aſhes, your Horſe-dung, your ſhovelings upon high-waies, your beſt hoves, your home ſhavings, your Hemp-weed, or any other weed which groweth neere ſeydge of the Sea, neither your Oxe or Cow-dung, though of all before named, that is the beſt which doth the moſt good upon theſe ſpoyled grounds, becauſe they have all in them a ſtrong quality of ſaltneſſe or ſharpeneſſe, which will rather adde then diminiſh the evill quality of the earth, but inſtead of theſe you ſhall take the mudde of dried bottomes of Lakes, Ponds, and Ditches of freſh water, and the moyſture or wetter ſuch mudde or bottomes are, the better it is, or Straw which is rotted by ſome freſh water courſe, raine, or the like, by no meanes

Election of meanures.

The beſt meanure.

that

that which is rotted by the urine or ſtale of Horſe or Cattell, for that it is the ſalteſt of all other; or you may take any weeds which you ſee grow in freſh rivers, ditches, ponds, or lakes, eſpecially thoſe which grow at the bottomes of Willow, Sallow, or Oſier trees, or you may take the old ragges of wollen cloth, or any other meanure which you know to be the wolleſt or freſheſt, and with any of theſe or all of theſe together, you ſhall plentifully cover your ground all over, and immediately upon the covering or laying on, ſee you preſently plow it, land after land; for to give it any long reſpit after it ſpread, the Sunne out of his attractive and ſtrong nature will exhale and draw out all the vertue from your meanure, and ſo ſpoyle much of your labour.

The ordering of the meanure.

The third plowing.

When you have thus meanured it, and plowed it, you may then let it reſt till *Michaelmas*, at which time you may plow it the laſt time, and then ſow it with the ſtrongeſt and hardeſt Wheate you have, of which the white Pollard is the beſt, and there is no queſtion but if it bee ſafe from a ſecond Inundation, your croppe will both bee plentifull and rich, and alſo acquit and pay largely for all your former charges. The ſecond yeere you need but onely plow it as aforeſaid; and then ſew it with good Hempſeed, and be aſſured you will have a brave crop ariſe thereof; then the third yeare you ſhall plow it as flat as you can, ſtill throwing it downe and not raiſing it up at all, and then ſow it with the beſt Oates you can get, according to the nature and ſtrength of your Countrey, and bee ſure to harrow it well, and to breake every clot, and make the mould as fine as is poſſible, and the next yeare after your Oates, lay it for graſſe, and I dare be bold, it will beare reaſonable meadow,

The laſt plowing, and the Sowing.

The ſecond yeare ſowing and third.

Laying the earth for graſſe.

dow; yet would I not have you this yeare to preserve it for that purpose; but rather to graze it with sheepe or Cattell, especially sheepe, of which I would have you lay on good store; for it matters not how neare or close to the ground they eate it; for the next yeare it will be come to the fulnesse of perfection; and be as profitable or more profitable ground then ever it was, and then you may apply or accommodate it for what use you please, either arable meadow, or for continuall grazing.

Of Grazing.

And thus much touching the manner of reducing againe, and bringing unto their first perfection, all sorts of grounds which have beene over-flowed or spoyled by salt water, or the sea breaches; whether it bee arable or pasture; as also the enriching or bettering of the same.

CHAP. 13.

Another way to enrich barren pastures, or meadowes, without the helpe of water.

IF your barren pastures or meadows be so seated that there is no possible meanes of washing or drowning them with water, you are then onely to restore and strengthen them by the efficacie of meanure or soyle, without any other helpe, and this may diverse waies be done, as by those manner of meanurings which I have formerly treated of. But to goe a better and briefer way to worke, and more for the ease and capacity of the plaine Husband-man, whensoever you shall be possest

possest of these barren pastures, if the barrennesse proceed from sand, or gravell, then some Husbands use to meanure the pasture over with the best clay they can get, first laying it in heapes, then spreading it, and lastly with clotting beetles breaking it into as fine dust as they can get, and this labour they commonly performe as soone as they can after Harvest when the latter spring is eaten, and the earth is most bare, but if the barrennesse proceed from an hungry, cold and dry clay, then they meanure it with the best moorish black earth which they can get, or with any moyst meanure whatsoever, especially and above the rest, when the soyle that is digged out of old ditches, ponds, or dried up standing lakes, and this earth must be laid plentifully upon the ground in meanure heapes, as aforesaid, that is to say, first in great heapes, then after broken and dispersed over the whole ground, and lastly broken into small dust, & mixed with the swarth of the ground, and this labour as the other is generally performed after the Harvest as a time of most convenience, and giving the earth a fit respite to sucke in the strength and comfort of the new earth, and also having all the Winter after with his frostes, showes, and showers, to mellow, ripen and mixe together the one earth with the other, and doubtlesse this is a most exceeding good husbandry, and not to bee reseld or carpt against by any knowing or sound judgment, onely it is not the most absolutest, or best of all waies whatsoever, but that others may bee found somewhat more neare, and somewhat more commodious.

Clay meanure

Morish earth.

Therefore whensoever you shall be owner of any of these barren pastures, or meadowes, of what nature or condition soever the earth be, whether proceeding

The best way to enrich pasture or meadow.

from

from gravell, ſand, clay, or peſtered with any other malignant quality whatſoever, to reduce it to fertility and goodneſſe in the ſhorteſt time, and to the moſt profit, about the moneth of *March*, when all paſture grounds are at the bareſt, and doe as it were remaine at a ſtand betweene decreaſing, and increaſing, you ſhall begin then to leade forth your meanure for the refreſhing of theſe earths, and the meanure which you ſhall carry unto theſe grounds, ſhall be the ſoyle of ſtreets within Cities or Townes, or the parings and gatherings up of the High-waies much beaten with travell, alſo the earth for two or three foote deepe which lieth under your dung-hill when the dung is removed, and carried away, for this is moſt precious and rich mould, and is not alone excellent for this uſe, but alſo for the uſe of Gardens, for the ſtrengthning and comforting of all ſorts of tender plants, and for the uſe of Orchards, for the comforting both of old and young Trees, when at any time their Rootes are bared, or otherwiſe when their groweth any miſlike or decreaſing.

The ſoile of the ſtreets, or high-aies.

Earth under dung-hils.

To enrich gardens, or Orchards.

You ſhall alſo take the fine earth or mould which is found in the hollow of old Willow trees, riſing from the roote up, almoſt to the middle of the tree, at leaſt ſo farre as the tree is hollow, for then this there is no earth or mould finer or richer.

The mould of willow in trees.

Of all of theſe meanures, or of any one of them, or of as many as you can conveniently get, you ſhall lead forth ſo much as may very plentifully meanure & cover your ground all over; you ſhall firſt lay it on the earth in reaſonable big heaps, and that the Sunne may not exhale the goodneſſe out of it; and then at your beſt leaſure, and ſo ſoone as you can conveniently, you ſhall ſpead it univerſally over the field, diſperſing it

as

as equally as you can, unlesse your field be more barren in one place then in another, which if it be, then you shall lay the greatest plenty where it is most barren, and the lesse where you finde the greatest fertillty, yet by all meanes see you scant not any place, but give every one its due; for to doe otherwise would shew much ill husbandry.

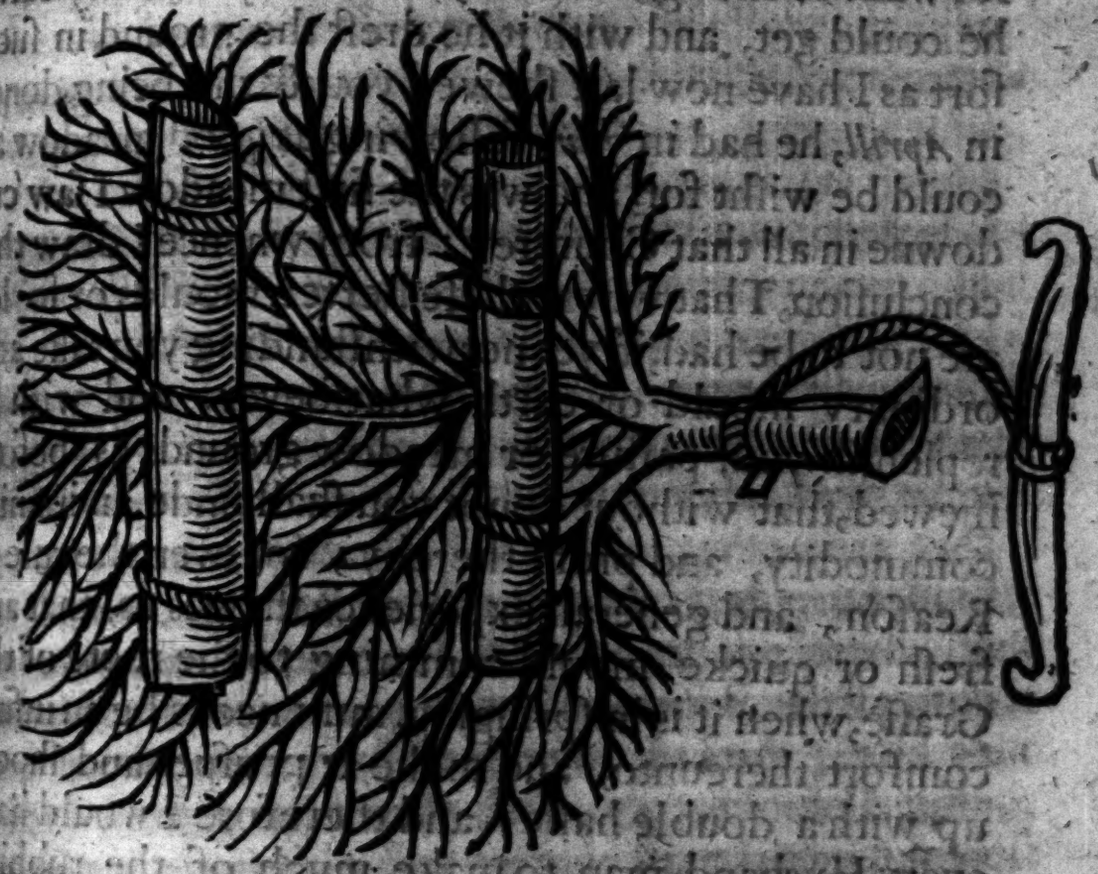
Now it is the use of some Husbandmen, that what mould or earth they lade out from sixe of the clock in the morning, till three of the clock in the after-noone, that they make their Hinds spread in the evening before they goe to supper, and questionlesse it is a very good course, and worthy to be imitated of every good Husband. The spreading of mould.

After you have laid forth your mould, and spread it all over your pasture or meadow, then you shall make some boyes, girles, or other poore people, to picke and gather up all the stones, stickes, or other unnecessary matter which might happen to bee led forth with the mould, and to picke and lay the pasture so cleane as is possible, which done, it is to be intended that yet notwithstandiug this ground will lie exceeding rough, both in respect of the clots of earth, which will not easily be broken, as also in respect of naturall toughnesse, of these rich moulds which at this time being digged up in in the wet, will not easily be separated or dissolved; and therefore when you have finished the labours beforesaid; you shall let the clots rest till the Sunne and weather have dried them, then after a good ground shower (observing to take the first that falleth) you shall harrow all your ground over after this manner. Of Stone gatering.

You

A new way of Harrowing.

You shall cut downe a pretty big white Thorn-tree, which we call the Hawthorne-tree, and make sure that it be wonderfull thicke, bushy, and rough growne, which done, you shall plash it as flat as you can, and spread it as broad as you can, and those branches or boughes which of necessity you must cut in sunder, you shal againe plash and thrust into the body of the Tree, binding them with cords or withes so fast thereto, that they may by no meanes scatter or shake out, and if any place appeare hollow or thinne, and cannot come to lie hard, firme, and rough upon the ground, then you shall take other rough bushes and thrust into the hollow places, and bind them from stirring, also till you have made your plash full and equall in all places, and that all the roughnesse may as in a flat levell equally touch the ground, when you have thus proportioned your Harrow, you shall then take great logges of wood, or pieces of timber, and with ropes binde them on the upper side of this rough Harrow, that the poise or weight of them may keepe the rough side hard and firme to the earth, and then the Harrow will carry this proportion or figure.



To the bigge end of this Harrow, you ſhall fixe a ſtrong rope, with a Swingle-tree with Treates, Coller, and Hames, and one Horſe is fully ſufficient to draw it round about the paſture or meadow, ſo with this Harrow you ſhall Harrow the ground all over, and it will not onely breake all the hard clots to a very fine duſt, but alſo diſperſe them and drive them into the ground, and give ſuch a comfort to the tender roots of the young graſſe then newly ſpringing, that it will double and treble the increaſe. And for mine owne part, this experience I my ſelfe have ſeene upon an extreame barren paſture ground in *Middleſex*, where none of theſe good moulds or ſoyles could be got, but the Husband was faine to take all the rubbiſh & courſe earth, even to the very ſweepings of his yard, and Of rubbiſh and ſweepings.

for want of enough thereof, to take any ordinary earth he could get, and with it he dreſt the ground in ſuch ſort as I have now laſt ſhewed you, & this being done, in *Aprill*, he had in *June* following as good meadow as could be wiſht for, and was the firſt meadow I ſaw cut downe in all that Countrey: from whence I draw this concluſion, That where theſe better moulds or ſoyles are not to be had, if yet notwithſtanding you take any ordinary mould or earth whatſoever, and with it replenith your paſture or meadow grounds as before ſhewed, that without doubt you ſhall finde an infinite commodity, and profit thereby; for even the rule of Reaſon, and generall experience ſhewes us, that any freſh or quicke mould comming to the roote of the Graſſe, when it is in ſpringing, muſt needs be an infinit comfort thereunto, and make it proſper, and ſhoote up with a double haſte, and therefore I would have every Husband-man to make much of the rubbiſh, ſweepings, parings, and ſpytlings of his houſe and yard, as alſo of ſhovellings up of the high waies, back-lanes, and other ſuch places, and eſpecially, if they bee any thing clayie, or morish, or ſandy mixt with any other ſoile; for of them he ſhall finde great uſe, according to the husbandry and experience already deſcribed.

Of ſope-aſhes. Laſtly, there is not any thing that more enriches paſture or meadow ground then Soape-aſhes, being thinnely ſcattered and ſpread over the ſame, and this labour would ever be done at the latter end of *April*, for then Graſſe is beginning to ſhoote up, and at that time finding a comfort, the increaſe will multiply exceedingly.

CHAP. 14.

How to enrich and make the most barrenest soile to beare excellent good pasture or meadow.

SO speake then of the bettering and enriching of these barren earths, and reducing them to good pasture or meadow: it is to be understood, that there are but two certaine waies to compasse and effect the same, namely water or mucke.

Two waies to enrich earths.

You are then when you goe about this profitable labour to consider the situation of the earth, if you would convert to pasture, and to elect for this purpose the best of this worst earth you can finde, and that which lies lowest, or else that which is so descending, as that the bottome thereof may stretch to the lowest part of the continent, for the lower that such grounds lie, the sooner they are made good, and brought to profit. Next you shall consider what burthen of grasse it beares, and whether the Grasse be cleane and entire of it selfe (which is the best and the likeliest soile to be made fruitfull) or else mixt with other worser growths, as thistles, heath, broome, or such like, and if it be burthened with any of these naughty weedes, you shall first destroy them by stubbing them up by the roots, and by burning the upper swarth of the earth with dry straw mixt with the weedes, which you shall cut from the same, then it shall be good for certaine nights both before the first and latter Spring to fold your sheepe upon this ground, and that not in a scant manner, but very plentifully, so as the dung of them may cover

over all the earth, and their feete trampling upon the ground, may not onely beate in the dung, but also beate off all the swarth from the earth, that where the fold goeth, there little or no Grasse may be perceived, then whilest the ground is soft, and thus trampled, you shall sow it all over with Hay-seeds, and then with your flat boord beetles beate the ground smooth and plaine, which done, you shall then strow, or thinly cover over the ground with the rotten staddles of Hay-stackes, and the mowie bottomes of Haybarnes, and over that you shall spread other strong meanure, of which Horse-dung, or Horse-dung and mans ordure mixt together is the best, or for want of such, either the meanure of Oxen, Kine, or other beasts; and this meanure also you shall spread very thinne upon the ground, and so let it lie till the Grasse come up through the same, which Grasse you shall by no meanes graze or feede with your Cattell, but being come to the perfectnesse of growth, you shall mow it downe, and although it will bee the first yeare but short and weary course, yet it skilleth not, for the ensuing yeares, shall yeeld the profit, and bring forth both so good Grasse, and such plenty thereof as reasonably you can require: for this is but the first making of your ground, and alteration of the nature thereof, neither shall you thus dresse your ground every yeare, but once in twenty, or forty yeares, having plenty of water to relieve it. When therefore you have thus the first onely prepared your ground by destroying the barren growth thereof, and by manuring, sowing, and dressing it, you shall then carefully search about the highest parts of the ground, and the highest parts of all other grounds, any way neigh-

neighbouring round about it, and somewhat above the levell thereof, to see if you can finde any Springs in the same, (as doubtlesse you cannot choose but doe except the ground be of more then strange nature,) and the heads of all such Springs as you shall finde, you shall by gutters and channels draw into those ditches which shall compasse your meadow round about, observing ever to bring the water into that part of the meadow ditch which ever lieth highest, and so let it have a currant passage through the ditches downe to the lower part thereof, and so into some Lake, Brooke, or other channell, and in this sort you may bring your water a mile or two: Nay I have seene water brought for this purpose, three or foure miles, and the gaine thereof hath quit the charge in very plentifull manner.

Of watering grounds.

But if you cannot finde any Springs at all, nor can have the helpe of any Lake, Brooke, River, or other Channell of moving water, (which is a doubt too curious, as being cast beyond the Moone) you shall then not onely cast ditches about this your meadow ground, but also about all other grounds which shall lie about, and that in such sort, that they all may have no passage but into the upper part of the meadow ditch, so that what raine soever shall fall from the Skie upon those earths, it shall bee received into those ditches, and by them conveyed into the meadow ditch: and to augment the store of this water, you shall also in sundry parts of those upper grounds which are above the meadow, in places most convenient, digge large Ponds or Pits, which both of themselves may breed, and also receive all such water as shall fall neere about them, and these Ponds or Pits being filled (as in the Winter

Helpes in the watering.

over all the earth, and their feete trampling upon the ground, may not onely beate in the dung, but alſo beate off all the ſwarth from the earth, that where the fold goeth, there little or no Graſſe may be perceived, then whileſt the ground is ſoft, and thus trampled, you ſhall ſow it all over with Hay-ſeeds, and then with your flat boord beetles beate the ground ſmooth and plaine, which done, you ſhall then ſtrow, or thinly cover over the ground with the rotten ſtaddles of Hay-ſtackes, and the moyſt bottomes of Haybarnes, and over that you ſhall ſpread other ſtrong meanure, of which Horſe-dung, or Horſe-dung and mans ordure mixt together is the beſt, or for want of ſuch, either the meanure of Oxen, Kine, or other beaſts; and this meanure alſo you ſhall ſpread very thinne upon the ground, and ſo let it lie till the Graſſe come up through the ſame, which Graſſe you ſhall by no meanes graze or fetde with your Cattell, but being come to the perfectneſſe of growth, you ſhall mow it downe, and although it will bee the firſt yeare but ſhort and very courſe, yet it skilleth not, for the enſuing yeares, ſhall yeeld the profit, and bring forth both ſo good Graſſe, and ſuch plenty thereof as reaſonably you can require: for this is but the firſt making of your ground, and alteration of the nature thereof, neither ſhall you thus dreſſe your ground every yeare, but once in twenty, or forty yeares, having plenty of water to relieve it. When therefore you have thus the firſt onely prepared your ground by deſtroying the barren growth thereof, and by meaſuring, ſowing, and dreſſing it, you ſhall then carefully ſearch about the higheſt parts of the ground, and the higheſt parts of all other grounds, any way neigh-

neighbouring round about it, and somewhat above the levell thereof, to see if you can finde any Springs in the same, (as doubtlesse you cannot choose but doe except the ground be of more then strange nature,) and the heads of all such Springs as you shall finde, you shall by gutters and channels draw into those ditches which shall compasse your meadow round about, observing ever to bring the water into that part of the meadow ditch which ever lieth highest, and so let it have a currant passage through the ditches downe to the lower part thereof, and so into some Lake, Brooke, or other channell, and in this sort you may bring your water a mile or two: Nay I have seene water brought for this purpose, three or foure miles, and the gaine thereof hath quit the charge in very plentifull manner.

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Helpes in the watering.

time necessarily they must needes be at every glut of raine) you shall presently by small draines made for that purpose, let the water out from them into the ditches, and so into the meadow ditch, and so stopping all the draines againe, make the Ponds or Pits capable to receive more water.

When and how to water.

When you have thus made your ground rich with water, and that you see it flow (as in the Winter-time necessarily it must) in plentifull manner through all your ditches, you shall then twice or thrice in the yeere, or oftener, as you shall then thinke meete in the most convenientest places of the meadow ditch, stop the same, and make the water to rise above his bounds, and to over-flow and cover your meadow-ground all over, and if it be a flat levell ground, if you let the water thus covering it to lie upon the same the space of foure or five daies, or a week, it shall not be amisse; and then you may water it the seldomer. But if it lie against the side of a hill, so that the water cannot rest upon the same, then you shall wash it all over, leaving no part unmoystened, and this you shall doe the oftener, according as the weather shall fall out, and your water grow more or lesse plentifull.

The best season for watering.

Now for the best season or time of the yeere for this watering of meadowes, you shall understand, that from *Allhallowtide*, which is the beginning of *November* (and at which time all after growth of meadowes are fully eaten, and cattell for the most part are taken up into the house) untill the end of *April* (at the which time grasse beginneth to spring and arise from the ground) you may water all your meadowes at your pleasure without danger, if you have water enough at your pleasure, and may spend or spare at your will; yet

yet to doe it in the best perfection, and whereby your ground may receive the greatest benefit, you shall understand, that the onely time for the watering of your meadowes, is immediately after any great fluxe of raine, falling in the Winter, any time before *May*, when the water is most muddy, foule, and troubled, for then it carrieth with it a soyle or compasse which being left upon the ground, wonderfully inricheth it, and makes it fruitfull beyond expectation, as daily is seene in those hard Countries where almost no grasse growes but by this industry. And here you must observe, that as you thus water one ground, so you may water many, having ever respect to begin with the highest, and so let the water passe out of one ground into another, untill it come to the lowest, which commonly is ever the most flat and levell, and there you may let the water remaine so long as you thinke good (as was before shewed) and then let it out into other waste ditches or rivers. And here you shall know, that this lowest ground will ever be the most fruitfull, as well because it lieth the warmest, moyst, and safest from stormes and tempests, as also because what soyle or other goodnesse this overflow of water, or the raine washeth from other grounds, it leaveth upon this, and so daily increaseth the fertility, from whence you shall gather, that at the first making of these meadow grounds you may bestow lesse cost of manure and other charges upon this lowest, flat, levell ground, than on the higher: and so by that rule also observe to bestow on the highest ground, and the highest part of the highest ground ever the greatest abundance of manure, and so as you shall descend lower and lower, to lay your manure thinner and thinner, yet not any

Ground fit for Hemp or Flaxe.

part utterly unfurnished and voyd of Compasse, yet as before I said, you are to remember that these meadow grounds need not thus much vse of meanure (having this benefit of water, and the first yeares dressing as was shewed in the beginning of this Chapter) above once in twenty yeares; nay it may be not above once in a mans life time.

And here also is to be considered, that the water which commeth from Clay or Marle grounds, being thicke muddy & pudly, is much better and richer then that which commeth from sand, gravell, or pibble, and so runneth cleare & smooth, for that rather doth wash away and consume the goodnesse of the ground, then any way adde strength thereunto.

CHAP. 15.

Of the enriching and dressing of barren grounds, for the vse of Hempe or Flaxe.

Grounds ill for Hempe or Flaxe.

YOu shall understand there are two sorts of grounds which out of their owne natures utterly refuse to beare Hempe or Flaxe; that is, the rich stiffe blacke Clay, of tough, solid, and fast mould, whose extreame fertility and fatnesse giveth such a surcharge to the increase of the seed, that either with the rankenesse it runneth all into Bun and no Rind, or else the seed being tender, and the mould sad and heavy, it burieth it so deepe therein, that it can by no meanes get out of the same, but lies choaked and consumed without profit; the other is the most wilde and extreame barren ground, which by reason of the climate wherein it lies, is so exceeding steril and unfruit-

fruitfull that it will neither beare these seeds, nor any other good seed; and of these two soiles onely I purpose in this place to intreate, for with such soiles as will naturally and commodiously beare these seeds, I have nothing to doe, in that I have sufficiently written of them in mine *English Husbandman*, and *English Housewife*, which are Bookes onely for good grounds, but this for all such grounds as are utterly held without cure.

To begin then with the stiffe blacke Clay, which albeit be very rich for Corne, is most poore for these seedes, when you would reduce and bring it to beare Hempe or Flaxe, which neere unto the Sea Coast, is of greater price and commodity than Corne any way can be, especially adjoyning into any place of fishing, in respect of Nets and other Engines, which is to be made of the same, and which being daily wasted and consumed, must likewise be daily replenished: You must first with a strong plow, fit for the nature of such land, plow up so much ground as you intend to sow Hempe or Flaxe upon, about the middest of *May*, if the weather be seasonable, and the ground not too hard: if otherwise, you must stay till a shower doe fall, and that the earth be moistned, then shall you harke it and breake the clottes in small pieces, then with the salt Sea-sand, you shall sand it very plentifully, but if that be not to be gotten, and that you be very well assured of the naturall richnesse of the earth, you shall then sand it with the best red sand you can get or finde neere unto you, and upon every Acre of ground you thus sand with fresh sand, you shall sow three bushels of Bay salt, and then plow up againe the earth, sand and salt together, which would be done about the latter end of the yeare, as after *Michaelmas*, and

Blacke Clay for Hempe, &c.

and so let the ground rest till seede-time; at which time, you shall first before you plow it, goe downe to the low rockes on which the Sea beats, and from thence, with drags, and other Engines, gather those broad leaved blacke weedes, which are called Ore-wood, and grow in great tufts and abundance about the shoare, and these weedes you shall bring to your Hemp-land, and cover it all over with the same, and then you shall plow it againe, burying the weedes within the earth.

And herein is to be observed, that in any wise you must lay these weeds as wet upon the land, as when you bring them out of the Sea, provided still, that you adde no other wet unto them but the salt water, for so they are of all soyles or meamires whatsoever, the onely best and fruitfullest, and most especially for these seeds, and breed an increase beyond expectation.

When you have thus plowed over the ground, you shall then hacke it againe, and then sowe it with either Hempe or Flaxe-seede, which you please, and after it is so sowne, you shall then harrow it (and not before) and you shall be carefull to harrow it into as fine mould as you can; and this mould is likely to runne fine enough, as well by reason of the fertility, as also of the mixture; yet what clots you cannot breake with your Harrowes, those you shall breake with your clotting-Beetles, and such like tooles: then after the first great shower which shall fall after your sowing, you shall runne over your land thus sowne with your backe Harrowes, that is, with a paire of large Harrowes, the wrong side turned upward, to wit, the teeth turned from the earth, and the backe towards the

earth;

earth; and if neede be, you ſhall lay upon the Harrowes ſome indifferent heavie piece of wood which may keepe the backe of the harrowes cloſer to the ground, and ſo goe over all the earth, and lay it as ſmooth and light as is poſſible, without leaving the ſmalleſt clot that may be unbroken. Now if the ground be ſowne with Hempe, you ſhall not thinke of weeding it at all, becauſe Hempe is ſo ſwift a grower, and ſuch a poyſon unto all weeds, that it over-runneth, choaketh, and deſtroyeth them; but if it be ſowne with Flaxe or Line, which is a much tenderer ſeede, and bringeth forth more tender leaves and branches, then you ſhal watch what weeds you ſee ſpring up, and in their firſt growth plucke them up and caſt them away, till you behold your Flaxe or Line to begrowne above the weeds, and then you may let it alone alſo, for after it hath once gotten height, it will not be over-growne with weeds.

Making of ill earth beare, &c.

Now touching the other ſoyle, which through the extreme barrenneſſe thereof, refuſing to bring forth any good fruite at all; you ſhall in all points dreſſe it as you dreſſe your plaine clayes, deſcribed in the ſecond Chapter of this Booke, beginning at the ſame time of the yeere that is then appointed, or (if more neceſſary occaſions hold you) if you beginne later, it ſhall not be amiſſe, and then at *Michaelmas* you ſhall plow it over the ſecond time, and meanure it with the Sea weedes, and ſo let it lie at reſt till *March* (which is ſeed-time) and then plow it againe, and meanure it with the Sea weeds againe, and after the plowing, you ſhall hacke it, and if in the hacking you finde the earth ſtiffe and tough, then you ſhall harrow it before you ſowe it, then ſowe it and harrow it againe, breaking the earth ſo ſmall, and laying it

ſo

ſo ſmooth as poſſible you can, uſing the helpe both of the clotting beetles and all other tooles which may be availeable for breaking the earth, and making the mould as fine as any aſhes, then after the firſt great ſhower of raine, perceiving the ground to be well moyſtned, you ſhall inſtead of the backe harrowes (which upon this earth may be too light) take the great rowler which is deſcribed in the Booke of the *Engliſh Husbandman*, being a great round piece of Timber of many ſquares, drawne either by Horſe or Oxen, but a ſingle Horſe is beſt, both in reſpect of much treading the ground, as alſo for the ſwift going away or drawing of the ſame: for the ſwifter it is drawne, the better it breaketh the ground, and the lighter it leaveth the mould: and with this rowler you ſhall runne over and ſmooth your ground very well, leaving no clot unbroken, and ſo let it reſt.

Weeding. As for the weeding of this ground, you ſhall not reſpect it at all, for naturally it will put up no weede, the very ground of it ſelfe being a very great enemy thereunto, nor ſhall you need to dreſſe this ground in the forme before ſaid, above once in eight or ten yeares: onely every ſeed time when you plow it (as you ſhall not need to plow it at any time, but ſeed-time onely) you ſhall before the plowing, cover or meanure the Land with the ſea-weed before ſpoken of, which will give ſtrength enough to the ground, without any other aſſiſtance.

CHAP.

Chap. 16.

The manner of stacking of all kind of Graine or Pulse with greatest safety, and least losse.

IN these barren and hard Countries, of which I have formerly written, all sorts of buildings are exceeding costly and scarce, both in respect of the clime, which is commonly most extreame cold, mountainous, and much subject to storme and tempest, as also through the great want of Wood and Timber, which in those hard soiles doth hardly or never prosper; and therefore in such places building must be both small and deere, so that it will be very hard for the Husband-man to have house-roome for all his Corne, but that of necessity he must be enforced to stacke much, or the most part of his Corne without the doores, which albeit it be a thing very usuall in this Kingdome; yet is it in many places so insufficiently done, that the losse which redounds thereby (partly by the moysture of the ground, which commonly doth rot and spoyle at least a yard thicknesse of the bottome of the stack next the ground, and partly through Mice, Rats, and other vermine, which breedeth in the stacke, doe eate and devoure a great part thereof; as also through many such like negligent causes) is greater then a good Husband may with his credit bee guilty of, or a profitable Husband will by any meanes suffer to be lost so negligently.

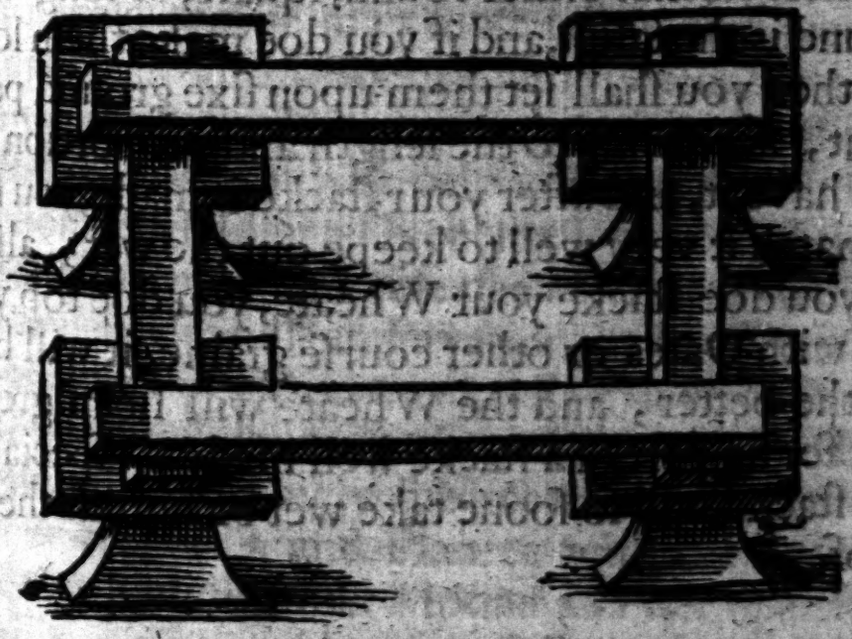
To shew then the manner how to stack or mow your Corne without the doores, in such sort, as neither the ground

ground ſhall rot it, nor theſe vermines deſtroy it, nor any other loſſe come to it by way of ill husbandry, you ſhall firſt cauſe foure pieces of timber, or foure ſtones to be hewed broad and round at the nether end, like the faſhion of a Sugar-loafe, or this figure.

And theſe pieces of wood or ſtone ſhall be in length three foote or thereabout, and in compaſſe or bredth at the bottome, two foote, or a foote and a halfe, and at the top not above one foote: theſe foure pieces of wood or ſtone you ſhall place in your ſtack-yard, or other convenient place neere your thraſhing-floore, and you ſhall place them foure ſquare, of an equall diſtance one from another, then you ſhall cut out foure ſmooth boardes of two inches and a halfe thicke at the leaſt, and full three foote ſquare every way, and theſe boards you ſhall lay upon the heads or narrow tops of theſe ſtones or pieces of timber, according to this Figure.

Then

Then ſhall you take ſtrong over lyers of wood, and lay them foure-ſquare from one board to another, according to this Figure.



And then upon thoſe over-lyars you ſhall lay other ſmaller poles cloſe one by another, & then upon them you ſhall mow or ſtacke all your Corne, whether it be Wheate,

Wheate, Barley, Oates, Peaſe, or any other kinde of graine, and be ſure if you make your ſtacke handſome and upright, which conſiſteth in the Art and workmanſhip of the workman, you ſhall never receive loſſe in your Corne, for the raiſing of it thus two or three foote from the ground will preſerve it from all moyſture or hurt thereof, and the broad boards which cover the foure ground poſts will not ſuffer any mice or other vermin to aſcend or come into the ſame.

Now for the manner of laying your Corne into the ſtacke, you ſhall be ſure, to turne that part of the ſheafe where the eares of the Corne lie ever inward into the ſtacke, and the other which is the ſtraw end, you ſhall ever turne outward, and by that meanes you ſhall be aſſured that no flying fowle, as Pigeons, Crowes, and ſuch like, can doe you any hurt or annoyance upon the ſame. Laſtly, you ſhall underſtand, that you may make theſe ſtackes either round, ſquare, or long-wiſe, yet round is the ſafeſt, and if you doe make them long-wiſe, then you ſhall ſet them upon ſixe ground poſts, or eight, according to the length and proportion you would have it, and after your ſtacke is made, you ſhall then thatch it very well to keepe out the wet; alſo if when you doe ſtacke your Wheate, you doe top your ſtacke with Oates or other courſe graine, it will be ſo much the better, and the Wheate will lie in greater ſafety, for no part of a ſtacke well made, eſpecially a round ſtacke, will ſo ſoone take wet or hurt, as the top thereof.

CHAP.

CHAP. 17.

The diſeaſes and imperfections which happen to all manner of Graine.

Albeit the manner of ſtacking and laying up of Corne or Graine in the forme before ſhewed, may to every one give an aſſurance for the ſafe and profitable keeping thereof as long as it endureth therein, and abideth in the eare, yet becauſe divers neceſſities may compell the Huſbandman to thraſh out his Corne, as either for preſent uſe of Straw, Chaffe, Garbage, or other commodities needfull unto him (as the ſeaſon of the yeere ſhall fall out) I thinke it moſt neceſſary in this place to ſhew how all manner of Graine and Pulſe, of what nature ſoever may moſt ſafely and profitably be kept from all manner of annoyances, or corruptions whatſoever, being a worke of that utility and goodneſſe, that not any belonging to the Huſbandman doth exceed it: Nor ſhall it be ſufficient to ſhew the offences and diſeaſes of Graine with their cures and healthfull preſervations, whileſt it is in the Huſbandmans poſſeſſion, but alſo whileſt it is in the earth, and at the mercy of cold, heat, moyſtneſſe or drineſſe, and not onely ſubject to the malignant influences of Starres and Planets, with the increaſing and decreaſing of the Moone and her operations: but alſo of divers other hurtfull Vermins; as Birds, Wormes, Piſmires, Dorres, Snailes, Moales, and other ſuch like: ſome whereof conſume and devoure the graine ere it ſprout: others in ſprouting, when the kernell is rotten and turned to ſweet ſubſtance, and

other after it is ſprouted by devouring the firſt tender leaves before they have ſtrength to appeare above the earth, being, as it were, but ſoft white threads, not changed into the ſtrength of greene, becauſe the aire and Sunne hath not yet look'd upon it.

Crowes, Pigeons, and Birds.

To beginne then with the firſt enemies of Corne or Graine, after it is throwne into the earth, there is none more noyſome than *Crowes* and *Choughes* and other ſmaller birds, which flocking after the ſeedes-man, will in a manner, devour and gather up the graine as faſt as it is ſowne; for as according to the old ſaying, *That many hands make light worke*; ſo many of their mouthes (being creatures that ever flie in flocks together) and their much nimbleneſſe in devouring, ſoone rob the earth of her ſtore, and deprive the labouring Huſband-man of very much profit, and the graine which theſe creatures doe moſt conſume, is all manner of white Corne; as Wheate of all kinde, Rye and Oates, as alſo Hemp-ſeed, Line-ſeed, Rape-ſeed, and ſuch like: Neither are they only offenſive, during this time of ſowing, but alſo after it is ſowne and covered, digging it with their ſtrong bills out of the earth, and ſo making the waſte greater and greater.

The Cure.

The prevention or cure of this evill, is divers, as the affections of people, and cuſtomes of Countries doe inſtruct them, for ſome (eſpecially the *French-men*) uſe when they ſow theſe graines or ſeedes, firſt, to ſprinckle it with the dregges or lees of their biteereſt oyles, which when theſe devouring fowles doe taſte, they refuſe to doe any further hurt: Others uſe to ſow Pigeons dung or Lime with their ſeede, which ſticking unto the graine, the unſavourineſſe thereof will make the fowle caſt

up the graine againe, and leave to doe further hurt: But for as much as theſe medicines cannot ever be had, nor are ever wholeſome for every ground, the onely beſt and ſafeſt meanes to prevent this evill, is to have ever ſome young boy with bow and arrowes to follow the Seeds-man and Harrowes, making a great noyſe and acclamation, and ſhooting his arrowes where he ſhall ſee theſe devourers light, not ceaſing, but chaſing them from the land, and not ſuffering them at any time to light upon the ſame; and theſe ſervants are called Field-keepers, or Crow-keepers, being of no leſſe uſe and profit (for the time) than any other ſervant whatſoever, nor is it ſufficient to have theſe Field-keepers for the bare time of ſeede, onely whileſt the graine is in ſowing, but he ſhall alſo maintaine them till ſuch time as you ſee the graine appeare above the earth, which for Wheate or Rye, becauſe they are Winter-ſeeds, and ſo longer in ſprouting, will aske a full moneth, for all other ſeeds which are ſowne in the Spring or Summer, a fortnight is full ſufficient; and this Field-keeper ſhall not faile to be in the Field an houre before Sunne in the morning, and ſo continue till halfe an houre after Sun-ſet in the evening; for at the riſing and ſetting of the Sun, is ever done the greateſt miſchiefe, for then are all creatures moſt eager and hungry: and though the indurance may promiſe much paine and trouble, yet queſtionleſſe the labour to any free ſpirit, is both eaſie and pleaſant.

Alſo if your Field-keeper in ſtead of his bow and arrowes doe uſe to ſhoot off a Musket, or Harquebuſh, the report thereof will appeare more terrible to theſe enemies of corne, and the profit thereof will be a great deale more: for a ſhot or two of powder will

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ſave more Corne than a weekes whooping and ſhouting; onely you muſt obſerve, that your Field-keeper uſe no Bullet or Haile-ſhot, for ſo hee may turne ſcaring to killing. Now touching the deſtruction which theſe creatures make of corne, after it is ſtack'd up; by tearing of the thatch, and digging holes and pits therein, to prevent that, you ſhall cauſe the Thatcher to ſcatter upon the Thatch, great ſtore of aſhes, of any kinde, or elſe Lime, that as the Pigeons or Crowes teareth up the ſtraw, the Lime or aſhes may ſparckle into their eyes and nares, which they will not endure: As for thoſe parts of the Stacke which cannot be thatch'd, as the ſides and ends; upon them you ſhall pricke divers ſcarcrowes, as dead Crowes, or dead Pigeons, or any other rags, or the ſhape of a man, made either of thumbe-ropes of Hay or Straw, or elſe ſome old caſt away apparell ſtop'd with ſtraw, and ſo fixed on the ſtacke; alſo in this caſe you may uſe Clapmills, or ſuch like toyes, which make a great noyſe: But to conclude the beſt prevention for theſe creatures (if you want ability to maintaine a Field-keeper) is to take long lines of packthread, and in them to knit divers feathers, of divers colours, eſpecially white ones, and with little ſtakes ſo to faſten them over the corne, that with every breath of wind, the feathers may dance and turne about, and the neerer that theſe blinkes or ſcars come to the ground (when the corne is new ſowne, ſo much the better it is, leſt the fowle finding a way to creepe under them, begin not to reſpect them; ſo that a hand or two from the ground is ſufficient, provided that the feathers and ſcars have liberty to play and move.

But if it be to ſave Corne in the ripening, that is to ſay,

ſay, a little before it be reap'd when the eare begins to harden, or when it lieth in ſingle ſheafe upon the land, for then fowle and birds doe as great miſchiefe, as at any other ſeaſon, it ſhall then be fit that you raiſe theſe lines or ſcars upon higher ſtakes, ſo as they may play as much above the eares of Corne as before they did above the earth; and amongſt theſe ſcarres thus made upon lines in ſundry parts of the field, you ſhall upon other ſtakes, place many other bigger ſcars, as dead Crowes, Pies, Gleads, Pigeons, or ſuch like, as alſo the proportions of man formerly ſhewed you, or any rags of cloth, being blacke, foule, and ugly, like bakers malkins, and than this there is no ſafer way for the defence of Graine or Corne from theſe birds, and ſuch like.

Of Piſmires.

The next great devourers or conſumers of Graine, are Piſmires, or Ants, which, although it be but a little creature, yet it is ſo labourſome, that the Graine which they carry away or deſtroy by eating, amounteth to a great quantity, and the miſchiefe which theſe little Vermines doe, is after the Corne is covered in the ground, and before it ſprout, for they creeping in at the little chinkes of the earth, and finding the corne, either drag it out, or eate it; ſo that it cannot grow, and the Graine which they moſt hurt, is all manner of white corne, eſpecially your fineſt and ſmalleſt Wheate, for the ſkin or hull is thinneſt, and the kernell whineſt and ſweeteſt: alſo to Barley they doe much hurt, eſpecially that which is fulleſt and beſt, and likewiſe to Rye, Hempe-ſeed, Lin-ſeed, and Rape-ſeed; as for Oats, becauſe it is double hull'd, and alſo your great hole ſtraw Wheat & Polard Wheat which is thicke hull'd, their hurt is not ſo much to them, and unto pulſe

nothing at all, becauſe they are too heavie, too thicke ſkinned, and too bitter in taſte.

The Cure. The beſt cure or prevention for theſe Piſmires, is to ſearch your Corne-fields well, eſpecially under hedges and old trees, and on the tops of Moale-hills, and if you find any beds or hills of Ants or Piſmires, preſently after Sun-ſetting with hot ſcalding water to drowne the beds or hills, or with wet ſtraw and fire to make ſuch a ſmoake upon them as may ſmother them to death: alſo if you meanure your Corne-lands with aſhes, lime, or ſalt ſand, you ſhall be well aſſured it will never breed Piſmires.

Of Dores. Next unto theſe, your Dores, or great blacke Clockes are vehement deſtroyers of all kinde of Corne both white Corne and Pulſe, whileſt it lyeth dry in the earth, and before it ſprout, for after it beginneth to rot, they doe no more touch it, and theſe Dores deſtroy it in the ſame manner, as the Piſmires doe, by creeping in at the ſmall crevies of the earth, and finding the Graine doe as long as it is dry, feed thereon, and though they are no hoarders, or gatherers together of the Graine keeping it in heapes in dry places, as the Piſmyres, and other Vermine doe, yet they are great feeders thereon, and that continually; beſides, they will ever chooſe out the fulleſt and beſt Corne, leave the leaner, whereby they doe the Huſbandman a double injury, as firſt, to devoure, and then to devoure but the beſt onely.

The Cure. The cure or prevention for theſe Dores, or blacke Clockes, is in Seed-time to make great ſmoakes in your Corne-fields, which will preſently chaſe them from thence, for they are the greateſt enemies that may be to all manner of ſmoake: but if that be not

ſufficient, then immediately before you ſow your Corne, you ſhall very lightly ſow your land with ſharp Lyme, and whenſoever the Dore ſhall find the ſmell, or taſte thereof, preſently he will depart, or if he eate of the Graine that toucheth the Lyme, it is as preſent poyſon unto him, and there he dyeth.

After theſe, your Field-Rats and Mice are very vehement deſtroyers of all manner of Graine or ſeede before they ſprout, eſpecially all ſort of Wheat, and all ſorts of Pulſe, becauſe for the moſt part thoſe kinde of Graines in many ſoyles are ſowne under furrow, and not harrowed, ſo that the furrowes at firſt lying a little hollow, theſe Vermines, getting in betweene the earth and them, will not only devoure and eate a great part of the Graine, but alſo gather together great heapes thereof into their neſts, as is often ſeene when at any time their neſts are found, ſome having more, ſome leſſe, according to their labours: And albeit in other ſoyles where the Graine is ſowne above furrowe, and ſo harrowed in, and laid much more cloſe and ſafe, they cannot doe ſo much hurt as in the former, yet even in theſe they will with their feet digge out the Corne in great abundance, and though in leſſe meaſure, yet doe hurt that is inſufferable; ſo that to conclude, neither Rye, Barley, Oates, nor any other ſmaller and more tender ſeedes are free from their annoyance and deſtruction. Of Field-Rats and Mice.

Now the cure and prevention for theſe Field-Rats, & Mice, are divers, according to the opinions of divers authors, and divers of our beſt experienc'd Husbandmen: for ſome uſe in the Dog-daies, or Canicular daies when the fields are commonly bare, to ſearch out the holes and neſts of theſe Rats and Mice, which The Cure.

are eaſily knowne, being little round holes in the earth made ſo round and artificially, as if they were made with an Auger, no bigger than the body of the creature that was to lie in it: and into theſe holes they uſe to put a few Hemlocke-ſeeds, of which, when the beaſt taſts, it is preſent death unto them: Others uſe to ſprinkle upon the land, *Hellebore* or neeſing-powder, mixt with *Barley-meale*, of which the Mice and Rats will greedily feed, and it is deadly bane and preſent death unto them. Laſtly, (and which is the beſt medicine) if you take a good quantity of ordinary greene *Glaſſe*, beaten alſo to powder, and as much *Copperas* or *vitriall* beaten alſo to powder, and mixe them with courſe *Honey*, till it come to a paſte, and then lay it in the holes and moſt ſuſpicious places, and it will neither leave Rat nor Mouſe about all your fields, but ſuddenly deſtroy them.

Of Wormes. The next great deſtroyers of Corne and Graine, are Wormes, and they deſtroy it in the ſprouting, then when the ground hath rotted it, and the white or milkie ſubſtance breaking open the upper huſke, ſhooteth forth in little white threads at both ends, upon which, whileſt it is ſo moyſt and tender, the Worme feedeth extremely, and ſo devouring up the ſubſtance or ſperme, is the cauſe the Corne cannot grow or get out of the ground, and theſe Wormes being, as it were, the maine citizens within the earth are ſo innumerable, that the loſſe which is bred by them is infinite.

The Cure. Now the Cure or prevention for theſe Wormes, is diverſly taken: for ſome Huſbandmen uſe, but only to ſtrike into the plow reſt, and under the loweſt edge of the ſhelbord certaine crooked ſpikes of iron of great nailes halfe driven in, and turned backe againe, with which

which as the plow runnes tearing in the ground, and turnes up the furrow, those pieces of iron kill and teare in pieces all such wormes as are either within or under the furrowes that the plow casts up, and this is sure a very good husbandly practice, but not sufficient for the destroying of such a secret hurtfull vermin which is so innumerable, and lies so much concealed; therefore more curious husbands use besides this helpe of the plow, to take Oxe-dung, and mixe it with straw, and then to burne it up in the land, making a great smoake over all the land, immediately before you plow it for seed, and it is thought that this will kill all the wormes which lie so high in the earth, as to hurt the Corne; Others use before they make either the mixture or the smoake, to wet the straw in strong Lye, and then adding it to the dung, the smoake will be so much the stronger, and the wormes killed the sooner, or if you sprinkle strong Lye upon your seed before you sow it, there is not any worme that will touch the graine after: Also, if you take Hempe and boyle it in water, and with that water sprinkle your seed before you sow it, not any worme will come neere to touch it.

Yet it is to be observed in this rule of wetting your seed-corne, that by no meanes you must wet your seed-Rye, for it is a Graine so warme and tender, that it will neither endure cold, wet, nor stiffe ground, insomuch that the Plow-man hath a Proverbe, That Rye will drownd in the Hopper, that is to say, it must neither be sowne on wet ground, nor in a wet day, since present shewers are apt to destroy it: lastly, it is thought, that oft plowing of your ground in the wane of the Moone, is a very good meanes to destroy wormes. Touching that practice which many use, to gather

Of Rye not to be wet.

gather the wormes from their lands at Sunne-riſe, in bright dewie mornings, and Sun-ſet, when the wormes couple about the earth, I hold it more fit for ſmall Gardens, than large Corne-fields.

Of Snailes. The next great deſtroyer of Corne are Snailes, and they deſtroy it after it is ſprouted, feeding upon the tender white threads and ſions which ſtart from the ſeed, and would riſe above the earth, being the ſtemme or ſtalke on which the eares ſhould grow (were it not devoured and eaten up by theſe Snailes, and ſuch like vermine) as ſoone as it begins to peepe up, or, as it were, but to open the earth, whereby it is driven back, and forced to die in the earth: for theſe creatures ſucking upon the tender ſweetneſſe, deprive it both of life and nouriſhment.

The Cure. The cure and prevention for this evill, is to take the ſoot of a Chimney, and after your Corne hath beene ſowne a weeke or ten daies, or within two or three daies after the firſt ſhower of raine which ſhall fall after the Corne is ſowne; you ſhall ſow this ſoot of the Chimney thinly over the land, and not a Snaile will endure to come thereon: Others uſe, eſpecially in *France* and thoſe more fertile Countries) to take common Oyle lees, and after the Corne hath beene ſowne, and is ready to appeare above ground, to ſprinkle it all over the Lands, by which meanes, no Snaile or ſuch like creature wil endure to come nere the ſame.

Of Graſhoppers. The next great deſtroyer of Corne is accounted the Graſhopper, and he alſo deſtroyeth it after it is ſprouted, and appeareth above the ground, as the Snaile doth, but ſomewhat more greedily, for hee not onely feedeth on the tender and white ſtrings, but upon the firſt greene leaves that appeare alſo; by which meanes

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the Corne is not able to ſpring or bring forth a ſtemme or ſtalke to beare the eare upon; or if it doe put forth any, yet it is ſo ſmall, weak and wretched, that the eare growing on the ſame, is withered and leane, and the graine dry and blaſted, and no better than Chaffe; nor is there any Corne that ſcapeth the deſtruction of the Graſhopper, for he generally feedeth on all: firſt, on Wheat and Rye, becauſe they are the earelieſt, then on the Barley and Oats: and laſtly, on Pulſe, upon whoſe leafe & bloſſome he feedeth, whileſt the firſt is ſweet and pleaſant, or the other greene.

Now the cure or prevention for theſe Creatures, is according to the opinion of ſome huſbandmen, to take Wormewood, and boyle it well in water, till the ſtrength of the Wormewood be gone thereinto, and then with that water, in the moneth of *May*, to ſprinkle all your Corne over when the Sun is riſing or ſetting: and not any Graſhopper will come neere, or annoy the ſame. Others uſe in ſtead of Wormewood, to boyle Centuary, and to uſe the water therof in the ſame manner as aforeſaid, and find an equall and like profit in the ſame, but it is moſt certaine, that any bitter decoction whatſoever, uſed and applyed as afore ſaid, will not leave one Graſhopper about your Fields, for any bitterneſſe is ſuch an enemy unto them, that they cannot live where they feele any taſte thereof. The Cure.

The laſt offence of living Creatures, belonging to Corne or Graine, are Moales, which not only feed upon it after it is ſprouted and ſpindled by eating up the roots thereof, and ſo conſequently by killing the whole Corne; but alſo by their digging and undermining of the earth, doe roote up the Corne, and deſtroy it in moſt wonderfull manner, for where they make their haunts, or are ſuffered to digge, there they will deſtroy Of Moles.

ſtroy almoſt halfe an Acre in a day, neither make they choice either of ground or graine, for all grounds and grains are alike, if the ground be not too wet, or ſubject to inundation or overflowes (as for the moſt part some grounds are not) for above all things, Moales cannot endure wet ground, or earth of too moiſt quality.

The Cure. Now the beſt cure or prevention againſt theſe creatures, is to find out their trenches and paſſages which are moſt plaine and eaſie to be knowne by the turning up of the new earth, and digging croſſe holes in the ſame, to watch either the going forth, or the comming back of the Moale, and when you ſee her caſt, to ſtrike her with an iron forke made of many graines, as eight or ſixe at the leaſt, and ſo to kill and deſtroy them; which ſtill is ſo generally knowne amongſt Husbandmen, that it is become a trade and occupation amongſt them, ſo that it needs no further deſcription, and the rather in as much as for three or foure pence a ſcore, you may have any ground cleanſed of Moales whatſoever.

Now there be ſome others which have not this art of killing or catching of Moales, which only doe take Brimſtone and wet ſtinking ſtraw, or any thing elſe that will make a ſtinking ſmoke, and putting fire thereto, ſmoke all the places of their haunts, and by that meanes drive them all cleane away from the corne-lands: many other practices they have, but none ſo good, certaine and probable as theſe already declared.

Offences from the influence of the heavens. Thus far I have ſpoken of thoſe offences which proceed from living creatures, I will now intreat of theſe which come and grow from the influence of the heavens, being malignant vapours, which ſtriking into the earth, doe alter the ſweete and pleaſant nouriſhment thereof, and change it into bitternesſe and rottennesſe, youth where-

by the Corne is either ſlaine outright, withered and made leane and unkindly, or elſe the kernell turned to a filthy blackneſſe, being bitter, dry, and duſty, like unto ſmoake, which the Huſbandman calleth ſmuttineſſe or mildewing commeth another way, as namely, by over rankneſſe, or too much fatneſſe of the earth, and this happeneth moſt commonly only to Wheat, for if blackneſſe happen to any other Graine, it commeth of blaſtings, or other malice of the Starres; for rankneſſe of the ground in Barley, Rie, or Oates, only makes them lie flat to the ground, the ſtalke not being able to ſupport the multiplicity of the eares, and ſo by that meanes the Graine wanting his true nouriſhment, growes light, withered, and of no validity; now that this is moſt eaſie to be found out, the rankneſſe of the growing Corne, riſing, as it were, in cloſe bundles together, and the deepe blackneſſe of the greene blades, will with ſmall travell ſhew you.

Of ſmuttineſſe and mildew.

This to cure and prevent, it ſhall be good before you ſow your Graine, to ſow your land lightly over with chalke, for that will abate his over-rankneſſe.

The Cure.

There be other malignant qualities which proceed from the influences of the Heavens, or rather from the qualities of the Planets or Elements which doe many dangerous hurts unto Corne, as namely the Haile, the Lightning, the Thunder, and the Planet-ſtroke or Blaſting, for all which the ancient Huſbandmen have ſuggeſted ſeverall Cures, as namely, for the Haile, to plant the white Vine, or ſticke the branches thereof in the Corne-field. For the Lightning, to cloſe a hedge-Toade in an earthen-pot, and burying her in the Corne-field, or to hang up the feathers of an Eagle, or a Seale-ſkinne, or to plant Lawrell therein: For the Thunder,

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Thunder, to ring Bells, to ſhoot off great Ordinance, or to burne ſtinking weeds in the Corne-field: and for Blaſting, to take the farre horne of an Oxe, and mixing it with dung, to burne it in the Corne-field, or to take the branches of the Bay-tree, and to plant them in the Corne-field: But in as much as all theſe, and many other the like, ſmell rather of conjuration, charme, or exorciſme, than of any probability of truth; I will neither here ſtand much upon them, nor perſwade any man to give further credit unto them, than as to the vapours of mens braines, which produce much many times, out of meere imagination; and ſo I will proceed unto thoſe things which are of farre greater likelihood.

Of Froſts. The next evill which happeneth unto Corne or graine, is that which commeth by froſts and ſharpe nipping colds, which ſtarving the root, and binding up all nouriſhment, maketh the Corne dry, wither, and never proſper; and then the violence of the froſts, here is nothing more bitter to Plants and ſeeds, for ever Raſor-like, it cutteth the veines and ſinewes in pieces, and as ſharpe Needles pricketh the heart of every growing thing: for as the fire is moſt hot, when it rageth, burneth and conſumeth all things, ſo the froſt is moſt cold when it continueth, ſtarveth and choaketh, or ſtifleth whatſoever it imbraceth.

The Cure. Now the Cure or prevention for thoſe evills which doe happen to Graine by theſe great Froſts, is as ſome Huſbandmen ſuppoſe, to cover the land over when it is ſowne, with aſhes, others ſpread ſtraw or rotten litter upon their Corne, and not any of them but is ſufficient to prevent the worſt injury that the froſt can doe.

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The moſt malignant quality which offendeth grain, is myſt and fog, which being naughty vapours drawne from the infected parts of the earth, and falling upon the Corne, doe not onely make the graine leprous, but alſo infecting the better earth alter the kindly nouriſhment thereof, and, as it were, diſtilling corruption in the veines, makes all that depend thereupon moſt leprous and unwholeſome, and thereby altereth the quality, quite turning ſweetneſſe into bitterneſſe, fulneſſe into emptineſſe, and goodneſſe into badneſſe, to the great loſſe of the Huſbandman, and the much diſreputation of the ground. Myſts & Fogs.

Now the Cure and prevention of this evill, according to the opinions of all the beſt Huſbandmen, is to take weeds greene, the twigs of brambles, and other bruſh wood, wet ſtraw, or any ſuch like ſtuffe, and binding them in great bundles, to put fire thereto, making a great and violent ſmoake, and then taking the advantage of the wind, to walke up and downe the field, and ſmoake it, which is thought a certaine remedy to take away thoſe inconveniences which happen by violence and poyſon of theſe myſts and fogs. The Cure.

Now to conclude the diſeaſes and infirmities which happen to Corne whileſt it is in the field, there is not any formerly ſpoken of, more dangerous, or of vilder quality, than the reaping, mowing, or gathering in of Corne, wet, or too greene, and unhardned, for ſuch moyſture, when the Corne is either ſheafed up cloſe together, or ſtack'd or mowed up, forthwith gathereth heat, and either ſetteth the Corne on fire, or elſe the moiſture being of leſſe quantity, and not apt to flame, yet it corrupteth the graine and ſtraw, and breedeth a ſtinking mouldineſſe or rottenneſſe about it, ſo that Corne reap'd wet.

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the graine either becomes dung and dirt, or atleaſt ſo ſtinking and unſavory, that it is good for no uſe or purpoſe, as is daily ſeene where careleſſe huſbands gather in their grain without reſpect or government, making the old Proverb good, that haſte ever brings waſt.

The Cure. The cure and prevention of this evill, is the well huſbanding and managing of the harveſt, as firſt, with a carefull and well judging eye to looke upon your Corne, and to know by the hanging downward of the eare (looking, as it were, backe to the ground) and by the hardneſſe of the Graine, whether it be ripe or no; then to looke into the cleanneſſe of the Corne, as whether it be full of greenes, as graſſe, weedes, and ſuch like: or cleane of it ſelfe, without any mixture: if you find there be many weedes mixt with it, then you may reape it ſo much the ſooner, though the kernell be not ſo well hardened as you would wiſh, and above all things, have a care, never to ſheare Corne in the raine or wet, no, not ſo much as with the mornings or evenings dew upon it, but even in the heat and brightneſſe of the day. Then having reap'd your Corne ſo full of graſſe and weeds, you ſhall by no meanes ſheafe it, but ſpreading it thinne in the Sunne, let the graſſe wither all that day; which when you perceive to change colour, and grow dry, then bind it up in ſheafes, and let it lie ſingle a day, that the wind and Sunne may get into it, and dry the greenes more ſufficiently; then lay it in ſtoucks of ſix or eight ſheafes apiece, and in thoſe ſtouckes, turne the eares ſo inward, that the other bigger ends may defend them from all raine, wet or dew that may fall upon them; then a day or two after, lay them in ſtouckes of twenty, or of foure and twenty ſheafes apiece, and in thoſe ſtouckes let them take a ſweat, then breake them open

open in a bright Sun-shine day, and letting the aire passe thorow them to dry them, forthwith leade the graine home, and house it, or stacke it in such sort as was shewed in the former Chapter, and be sure the graine thus ordered and dried, can never take hurt: but if the season of the yeere fall out so extraordinary evill, and full of wet, that by no meanes you can get your Corne dry home (which although it be seldome seene, yet it is possible to be seene) in this case you must bring it home as well as you can, and having your Kilne well ordered and bedded, you shall lay as many sheaves thereon, as it can containe, and turning and rolling them over a very gentle fire; by slow degrees dry them very perfectly as neere as you can, with no greater a heate than that which the Sunne giveth, and then mowe and stacke them up at your pleasure, for the aire will sweeten them againe, and take away all smell of smoake or other annoyance: onely observe not to stacke them up whilest the fire or heate is in them, but when they are cold, and so they will be as sweet as may be.

Of Corne Wash'd.

Now it is not amisse that I speake here a word or two of wash'd Corne, or the washing of Corne; True it is (as before I have written) that all sorts of Wheat whatsoever are subject, either by the rankenesse of the ground, blasting, or else mildewing, to a kinde of filthy sooty blackenesse, as is already shewed; and this sooty Corne is taken two waies, generally and particularly: generally, if the whole land be stricken, and no corne saved, but all spoyled, which is called mildew'd: or particularly, where but some certaine eares are struck, or some certaine part of the graine, as when it is blacke at both ends, yet full and sound in the middest, and

this is called smutch'd Corne, being disfigured in part, and not in all. This smutch'd Corne which is stricken here and there, if the blasted eares be not culled out from the other, (which to doe is an husbandry exceeding good and very worthy) when it commeth under the flayle, the dust of those blacke blasted eares will so foule all the rest of the corne, that it will looke blacke and ill-favoured, and so become unserviceable and unmarketable; for the blasted corne is both bitter and unwholesome: In this case you must of force wash this corne, and you must doe it in two or three waters, till you see all the blackenesse quite gone; which done, then draine away your water cleane, and laying the corne on faier winnow-clothes, or coverlids, lay it in the heate of the Sunne, and so dry it againe till it be so hard, that it will grind: But if the time of the yeere will not serve for the Sunnes drying it, then you shall dry it on a Kilne with a very soft and gentle fire; and then coole it in the aire to recover the sweetnesse againe, and then the corne is as serviceable as any other, onely for seed it will by no meanes serve, both by meanes of the blasting, which makes the kernell imperfect at both ends, where it should sprout, as also the too much drying thereof, by which it is so much hardened, that the ground hath not strength to resolve it, therefore it is the office of every husbandman when he chooseth his seed-corne, to shew by all meanes this wash'd corne as a graine that is lost in the earth, and will by no meanes grow.

Of Corne wash'd.

How to know wash'd corne.

Therefore that you may know wash'd corne from all other corne, and so not to be cozened by any deceit in the ill Husbandman, you shall take it up into your hand, and if the corne looke bright, cleere, and shining

ning, being all of one entire colour without change or difference, then be sure the corne is unwash'd and perfect.

But if you find it looke whiter at the ends than in any other part of the Corne, and that the whitenesse is blacke, and not shining, so that there is a changeable colour in the corne, then be assured, that the Corne is wash'd, and then by no meanes apt for seed or increase.

Againe, put three or foure graines into your mouth and chaw them, and if then the taste be sweet and pleasant, and grind mellow and gently betweene your teeth, then is the corne not wash'd; but if it have a bitterish, or flashie raw taste, and grind hard betweene your teeth, or with much roughnesse, then hath the Corne beene wash'd & dri'd againe, and is not good for seed: also when corne is more than ordinarily moist, or more than ordinarily dry, both are very ill signes, and shew either imperfect corne, or imperfect keeping, for the best and good corne indeed ever holdeth an indifferent temperature betwixt drinesse and moisture.

Chap. 18.

How to keepe all manner of Graine, either thrash'd or unthrash'd with least losse, the longest time, and how to preserve it from all infirmities and Vermine in the house or garner.

TO proceed to the keeping and preserving of Corne and Graine, it is to be understood, that it is to be done two severall wayes; that is to say, in the Eare, and out of the Eare, in the Stacke when it is joyn'd with the Straw and Chaffe, or in the Garner, when it is cleansed & dressed. Keeping of corne two-fold.

Touching the keeping of Corne in the Eare or in the Stacke, there is no better or safer way than that already described in the sixteenth Chapter, being free from all offences whatsoever that can come to hurt it.

Keeping corne in the eare or in the chaffe.

Now there be others that cut off the Eares of their Corne, and then put them into great Chests or Hutches of wood, (such are very frequent, and much in use in *Ireland* and other Countries where warre rageth) and so keepe it sweete and good many yeeres: Others use to beate it out of the Eare, but not separate it from the Chaffe, and then laying a leare of the Straw more than a foot thicke, to lay a good thicke leare of the threshd Corne, then another leare of Straw, and so a leare of thresh'd Corne, and thus leare upon leare, till you have made up your stacke in such proportion as you shall thinke convenient; and this will keepe all kinde of Corne, or Graine, or other seedes, sound, sweete, and fit for any purpose, at least a dozen yeeres, or more, as some have supposed, without either too much drying, withering, moystening, or moulding; and sure this is a very excellent way for the storing up of much Corne in a very little roome, and may as well be done with Corne as with Straw: onely it is not to be done in Barne nor House, because Mice, Rats, and other kind of Vermine, will worke much destruction thereupon; but on a Stacke or Hovell made and proportioned in such forme as we shewed before in the sixteenth Chapter, and so it will stand safe without all annoyance, as long as it shall please the owner to keepe it; sure I am, it will last thus fully twelve yeeres, yet some Authors affirme it will last fifty yeeres, but that is a space of yeeres beyond my triall.

Touching the keeping of Corne after it is thresh'd and dreſt, it is divers waies to be done, as by ſtoage or place of leare, as garners, hutches and ſuch like; by labour and induſtry, as with the ſhovell: or elſe by device or medicine. Keeping of corne out of the Eare, or dreſt.

For Garners, they be made divers waies, according to the nature of the Country and cuſtome of the people. Of Garners.

Some are made with clay and lome troden with haire, ſtraw chop'd, and ſuch like: but theſe are the worſt, and doe ſooneſt corrupt Corne, for although they are warme, which is a great preſervation to corne, yet they yeeld duſt, and from that duſt is bred Fleas, Mytes, Weavels, and other vermin, which ſpoile corne, and make it eaſily rot.

Others are made of ſtone and lyme, but they are ſubject againſt wet weather, to yeeld forth a moyſt dew which corrupteth and rotteth corne.

Others are made of Bricke and Lyme, and they are very good againſt the Weavell, and other ſmall vermine, but the Lyme is ſharp, and ſo conſequently very unwholeſome for all manner of Graine. The beſt Garner then that can be made to keepe all manner of graine in, is made of plaſter, burn'd and brought into morter, and ſo raiſing it up with the help of ſmall ſtones hidden and placed in the midſt of the wall, to make both the inſide, and the outſide of the Garner of ſmooth plaſter, no ſtone being ſeen, but hidden at leaſt two fingers thick on each ſide, and all the bottome alſo muſt be made of plaſter; for no floore keepeth corne ſo well, of what kind ſoever it be, and theſe Garners would be placed as neere as you can to the backes or ſides of chimnies, or as neere the aire of the fire as you can conveniently, for as there is nothing more cold than

than plaster, yet it is ever so dry and free from moysture, that with no change of the aire or weather it relenteth, but keepeth the Corne ever in one state of goodnesse, whilst the warme standing thereof is such a comfort in the Winter, and the naturall coolenesse of the thing so soveraigne in Summer, that the Graine ever abideth in one state without alteration.

Of Hutches. Now for Hutches or great Chests, Byngs, Dry-fats, and such like, they are made of old, dry, and well seasoned Oake-boords, plained, smooth, and close joyn'd and glewed together, with covers and lids made also very close, whereby little or no aire can come in: Some of these great Byngs or Hutches made of dry boords are made open, and without covers, but they are not so good, for the aire cooling the upper part of the Corne, and the middle part sweating, breedeth corruption or mustinesse, which hurteth and spoyleth the Corne: Besides, they are somewhat too warme, and thereby make any greene Corne apt to corrupt and smell.

Touching the use of Garners and Hutches, they are principally to keepe Malt after it is dryed, or Barley which is for the use of bread or meale: and here is to be noted, that the best manner of keeping Malt, is to keepe it in the Corne, that is to say, in the dust and other filth which commeth with it from the Kilne, as thus: when first you lay your Malt on the Kilne to be dryed, you know there is at one end a certain sprout, or small threads which growes from the Corne, and it is called the combe, which by the rubbing and drying of the Malt falls away, and leaves the Corne cleane and sining of it selfe, and when you trim and dresse up your Malt for the Mill, is winnow'd and cleansed away: this you shall preserve and put all together in your Garner

or Hutch, which will ſo mellow and ripen your maſt, that in the ſpending thereof a pecke will goe further than a pecke and a halfe kept of a contrary faſhion, and although ſome are perſwaded that this ceme or malt-duſt, is a great breeder of the Worme or Weavell, by reaſon of the much heate thereof, being indeed of the pureſt of the heart of the Corne; yet it is not ſo, unleſſe ſome dankneſſe or moyſture doe get to the Corne, and then it breeds Weavells in infinite abundance, and therefore by all meanes be ſure that your Garners and Hutches doe ſtand exceeding dry, and then there is no feare of the loſſe of corne, nor ſhall you need to dreſſe or winnow your malt but as you ſpend it.

Laſtly, here is to be noted, that although I here joyne Garners, Hutches, Cheſts, and Byngs together, yet I make them not all of equall goodneſſe; for the plaſter Garner is abſolutely the beſt of all, the cloſe Hutch or Cheſt next, and the open Byng laſt; yet any, or all ſufficient enough to keepe Malt, Barley, or ſmall ſeeds, divers yeeres without imperfection.

It is written by ſome of the ancienteſt Authours, that Wheat hath beene kept in theſe cloſe Hutches or Cheſts ſweet, the ſpace of fifty yeeres, yet I hold the rule ſomewhat doubtfull, both becauſe Wheat of it ſelfe lying ſo cloſe pack'd together, is apt to heate and ſweat, and that heat commonly turneth to faughtineſſe, and the ſweat to corruption; but that it may thus be preſerved from Wormes, Weavells, Mytes, and other vermine breeding in Corne, it is doubtleſſe and infallible.

Now for the preſervation of Wheat, which is the moſt principall Graine, of greateſt uſe, and greateſt price, and therewithall moſt tender, and apteſt to take hurt: To preſerve Wheat.

hurt: the experiments are divers, as mens fancies and practises have found out; for some Husbandmen hold opinion, especially the *French* and *Spaniſh*, that if you take the lees of common oile, (so it be sweete) and sprinkle it upon your Wheate as it lies, either in the garner, or upon the floore, that it will preserve it from all corruption and annoyance whatsoever, nor doth it save Wheate onely, but all other manner of Graine whatsoever; nor doth preserve corne alone from mischiefe, but if corne by casualty be tainted or hurt, it doth recover it againe, and brings it to the first sweetnesse; and if either Wormes or Weavels be bred in it, the oile presently kills them, and makes the corne from that mischiefe: as for smaller seeds, as Hempe, Line, and Rape, this oile doth not onely keepe them long and sound, but also feeds and nourishes them, and makes them better, either for the ground, or for use, either in the Mill or in Medicine. There be others that use to take Chalke, and beate it to powder, and then scatter it amongst their Wheat, when they put it into the garner, and have found that thereby their graine hath beene wonderfully preserved from all imperfection, and surely there is great reason for the same, because the drinesse of the Chalke drinketh up the moysture which sweateth from the graine, and is the first breeder of all putrefaction: also it cooleth and allwageth the immoderate heate which is ingendred in the corne, by reason of the packe and close lying together.

Againe, there be others which use to lay great store of Wormwood amongst their Wheat, which likewise preserveth it from all annoyances, especially from Wormes and Weavels, as also from Mice, Rats, and such devouring vermine; neither will the Corne cor-

rupt

rupt or grow naughty, as long as the Wormewood remaines amongst it: In *Italy* the careful Husbands use to take a certaine dry earth or clay, called earth of *Thebes* or *Corinthus*, and this earth they beat amongst their Wheat, and then put it into the garner or hutch, and it will keepe it sound and sweet divers yeeres together; then when they have occasion to use it, with small reeing-sives to dresse it from the Corne, and so preserve the dust, which will last and serve you many yeeres together, even almost an age, as some have reported, and is at this day to be seene in many parts of *Italy* and other places.

Againe, I have for mine owne part seene in the Ilands of the *Azores*, certaine very great and large caves or pits made under the earth, of the fashion of a *Spanish* earthen Jarre, that is to say, great and spacious in the midst, and narrow both at the top and bottome, like a brasse-pot, or great glasse-viall, and made as smooth within as may be, and in these caves or pits, they first lay chaffe, and then their thrash'd Wheat, filling it up full to the top, or within a handfull thereof, which they fill againe with chaffe, and then closing the top with a broad stone, they cover it over with earth, so close and unperceivable, that you may walke or travell over it without any suspicion; and for mine owne part, I have my selfe digged up many of these pits, and found great store of Wheat, both in the high-waies, and other most unsuspicious places, and surely it is thought, and experience in those places makes it good, that in these caves or pits you may keepe Wheat as long, if you please, as *Pliny* speaketh of, which is an hundred, or an hundred and twenty yeeres without hurt or putrifaction, either of heate, moysture, Wormes, Weavells

or

or any other vermine whatsoever which consumeth or devoureth Corne; yet how I may recommend this experiment to our Nation, I am uncertaine, because the much moisture of our climate, and the cold rawnesse thereof promiseth a contrary effect; for the great enemies unto graine, are violent cold and moysture, and with us it is very difficult to make any cavernes under the earth, but they must be subject unto both: therefore onely to those which live in hot sandy Countries, high and free from springs or waters, or in dry and rockie grounds, where these mynes or hollow places may be hewed out, as in a maine and firme quarry, I recommend the tryall of this practice, with this assurance, that where the ground is fit for this purpose, as in any of your sand grounds, or gravelly earths, as in *Norfolke*, *Middlesex*, *Kent*, and many other sandy climates; or in rockie situations, as in *Nottingham*, *Bathe*, *Bristol*, and such like, you may keepe your Wheat, good, sound, firme, and free from all annoyances, even as long as you shall please to keepe it, both without putrifaction in it selfe, or waste made by other devouring wormes and vermine: but if in a more moyst place, as in a clay, or other mixt earth, which ever is vomiting wet and dewish humours, you are forced to approve this experiment: then you must necessarily lime all your cave or hollow myne within, at least halfe a foot thick with a tyle shred, and plaster laid wall-like together, and then the plaster dawbed at least three fingers thicke above all, and so you may keepe your Corne as safe and as sound as any hot soyle whatsoever, but without it your Corne will not endure a weeke without rottennesse, faughtinesse, moldinesse, and stinking.

To conclude, having shewed you all the most approved

proved and best experiments for the keeping and preserving of Wheat, there is none better, or so good as this poore silly plaine one which I will here deliver: And that is, first (as neere as you can) reape your Wheat at the change of the Moone, for Wheat which is so reap'd, is seldome or never subject to losse or putrifaction (being gotten dry, and in husbandly manner ordered and handled) because that celestiall body hath such a power and influence in the growth of Corne and Seeds, that as shee groweth so they grow, and as she waneth, so they abate and wither.

And truly for mine owne part, in my poore husbandry, I have made this observation, that I have reaped corne at the beginning of the wane (to mine eye and judgement) great, full, and bold (as the Plow-man calls it) and within few daies after, when it came to thrashing, I have found it most poore, hungry, and small corne: nor could I give, or find any other reason for the same, but that it was reap'd in an ill and most unseasonable time: for on the contrary part, I have ever found that corne reap'd upon the change, being ripe, full, and every way fit for the Barne (and the weather faire and dry above head) it hath never altered, but kept his first and perfect goodnesse, so that I cannot choose but in this case thinke the observation of the Moone to be a thing of great effect and validity, appointed by God as a second meanes for our help and profit: when therefore your corne is thus seasonably and well got, you shall thrash it, winow it, & dresse it so cleane as you can, then carry it up into your chambers, or losts appointed for that purpose, and whose floores by all meanes I would wish to be cast of the best plaster; for boords are too hot, and clay is too apt to breed vermine: On this plaster-floore you shall spread your Wheat not

above

above a foot thicke at the uttermoſt, and ſo let it lie; obſerving once in foure, or in five daies at the moſt, with a large wooden ſhovell, to turne the Wheate quite over and over. And thus doing, you ſhall be ſure to keepe it as ſweet, ſound and good, as when it firſt came into the barne: for neither can the heat, ſweat, nor coldneſſe offend it, the firſt being cooled and tempered by the opening and diſperſing; the ſecond dryed up by the aire which hath free recourſe into it, and the laſt comforted by the labour and toſſing of the ſhovell, caſting it up and downe from one place to another, and though ſome curious Husbands may object, that this manner of keeping corne, drieth it ſomewhat too much, and thereby diſableth it for ſome particular purpoſes, as for ſeed and ſuch like; yet in that they are much miſtaken; for this ſtirring and moving of Graine, is not a drying of it, but rather a great comforter and ſtrengthener of it, diſperſing backe into the Corne, thoſe wholeſome vapours which ſhould doe it good (by way of communication and fellowſhip with the graine) and expelling thoſe ill humors which ſweating out of it would otherwiſe confound and hurt it, ſo that in concluſion for the true and long keeping of Wheat ſweet, ſound, and perfect, without loſſe or corruption, there is no way more ſafe or eaſie, than this laſt expreſſed, being of all other the beſt, although in ſhew it appeare ſleight and triviall, as for the moſt part things of greateſt moment in this nature doe; but to the judicious Husbandman I referre it, whoſe aime is at the worth and ſubſtance, not at the words and curious gloſſe, ſet forth in ſtrange ingredients.

To preſerve Rye.

Touching the keeping of Rie or Maſlin, or as ſome call it munck-corne or blanch-corne, being part Rie, and

part

part Wheat mixed together, that which preserveth Wheat, will also preserve it, for they are Graine of like nature, onely the Rye is somewhat hotter and dryer, and therefore will endure somewhat more moysture; yet to speake particularly touching the preservation of Rye, there is nothing better than the Plaster-floore, and oft turning; the close Hutch is also exceeding good, so is the Pipe or Dryfat, but being once opened, and the aire entring into the Corne, except it be soone spent, it will soone putrifie, for though in the close keeping it last long, yet when it comes to the aire, it quickely receives taint. Lastly, for the profit in keeping of Rye, indeed there is nothing better than to ply it and tread it hard into hard vessells or barrells wherein salt hath beene much lodged, or other brine or salt matter: provided alwaies, that the vessels be sweet and untainted, no waies subject to faughtinesse, or other unsavory smels, from which there is no preservation.

To preserve Beanes.

Concerning the preservation & keeping of Beanes, which are indeed a more grosse and fatter graine than any heretofore written of, and out of the fulnesse of their substance, more subject to moisture and those dankish humours which corrupt Corne: the carefull Husbandman observeth two rules; first, not to thrash any Beanes or Pulse, more than for necessary use (as for the Stable or Mill) before it be midde *March*, at which time the Graine having taken a kindly sweat in the Mow, Stacke, or Hovell, is become so dry, firme, and solid, that no floore, wall, or other place of leare, can make it relent or give againe, (except great abuse and too moist keeping) for it is to be understood, that this sort of Pulse or Graine is of it selfe so exceeding moist, and apt to sweat in the Mow, that all Husband-

men

men endeavoure by no meanes to house it, or lay it within doores, but seeke to make it up in stackes and hovells without doores; not so much that house-roome is wanting, as that the benefit of the Sunne and aire which piercеth through the same, dryeth and ripeneth the Corne in such kindly manner, as maketh it as serviceable as any other: and indeed, the first invention of stackes, hovells, reekes, and such like, did not spring so much from the want of housing, as from the good and profit which the Husbandman found to accrue to this kinde of Graine only by reason of laying it abroad; for it is certaine, that Beanes and Pease neither grow together, nor ripen together, but put forth their increase one after another; for you shall see upon one stalke bloomes, swads, and ripe cods: So likewise in the gathering of Pulse (when it is reaped from the ground) you shall see some dry and withered, some ripe, some halfe ripe, some absolutely greene, and as but new in growing.

Now all these must be reap'd together, and if you stay them in the field till all be of like drinesse, questionlesse the oldest will shake and shed upon the ground before the youngest be ripened, and what that losse will redound to, every Husbandman can judge; so also to house and mow up in close mow, the dry Pulse with the greene, surely the greene cannot choose but inflame and heate the dry, and the dry so heated, give fire to the greene, till both be either rotted, or consumed; and hence it came, that expert Husbandmen devised to lay their Pulse for the most part ever without doores in stackes, reekes, and hovells, that the Sunne and Wind passing thorow them, might bring all the Graine to an equall drinesse and hardnesse.

Againe,

Againe, Pulſe being of all graine the courſeſt and fulleſt of ſubſtance in it ſelfe, and the ſtraw ever big and ſubſtantiall, and full of broad thicke leaves ever moiſt and ſappy; it muſt needs follow that this graine muſt ever be moſt apt to ſweat in the mow, and ſo neceſſarily craveth the greateſt ſtore of aire, and the longeſt time in drying; ſo that to returne to my firſt purpoſe, it muſt needs follow, that no Beanes or Peaſe can be ripe or ſeaſoned in the mow, till it be mid *March* at leaſt; for it is an old ſaying among the beſt Husbandmen; *That a March wind is a ſalt that ſeaſoneth all Pulſe*; And if uſe or neceſſity compell men to thraſh their Pulſe before that time, the graine is ſo imperfect, that it muſt be Kilne dried, or elſe it is fit neither for the uſe of bread nor provender.

Now herein is to be underſtood that Peaſe or Beanes which are Kilne dried, may be kept ſound, ſweet, and good, either on plaſter-floores, boarded floores, or earthie floores, the ſpace of many yeeres without turning or toſſing; nor need you to reſpect how thicke the heape lie, ſince Beanes after they are once dried on the Kilne, or in the Sunne, never after will thawe, give againe or relent, but remaine in their firſt ſoundneſſe. But if you preſerve your Beanes for other uſes, as to boyle in your pot, and feed your ſervants withall, as is uſed in *Somerſet-ſhire*, and many other Weſtly parts of this Kingdome, then it ſhall be good for you to take oile-barrells, oile-caſke that is ſweet, and firſt Calke them all over within and without with aſhes, and then put your Beanes therein, and cloſe up the heads, and as it is affirmed by divers great Authours of Husbandry, it will keepe Beanes ſound, ſweet, and good, twenty yeeres: nay, ſome give inſtances of Beanes which have beene thus kept and preſerved the ſpace of

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men endeavoure by no meanes to house it, or lay it within doores, but seeke to make it up in stackes and hovells without doores; not so much that house-roome is wanting, as that the benefit of the Sunne and aire which piercеth through the same, dryeth and ripeneth the Corne in such kindly manner, as maketh it as serviceable as any other: and indeed, the first invention of stackes, hovells, reekes, and such like, did not spring so much from the want of housing, as from the good and profit which the Husbandman found to accrue to this kinde of Graine only by reason of laying it abroad; for it is certaine, that Beanes and Pease neither grow together, nor ripen together, but put forth their increase one after another; for you shall see upon one stalke blooms, swads, and ripe cods: So likewise in the gathering of Pulse (when it is reaped from the ground) you shall see some dry and withered, some ripe, some halfe ripe, some absolutely greene, and as but new in growing.

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one hundred and twenty yeeres, and ſurely I am perſwaded, that if Beanes be well and dry got, and thraſh'd at a ſeaſonable time of the yeere, as in *March* or *April*, that then thus kept, they will laſt the uttermoſt of a mans pleaſure.

Preſerving of Peaſe or Fetches.

Now for the keeping and preſerving of Peaſe or Fetches, which of all other Graine whatſoever, is moſt ſubject to rottenneſſe and imperfection, becauſe out of it's owne nature it is apt to breed Wormes, Weavils, and Mytes, by reaſon of the much luſhious ſweeteneſſe of the Kernell of the Graine; you ſhall in all things obſerve the ſame courſes that you doe with your Beanes, both touching your gathering, drying, ſtacking and alſo thraſhing, for as they are moſt apteſt to grow together, being neere of nature and condition one to the other, ſo it is fit that unto them you doe apply one and the ſelfe ſame medicine or remedy.

And herein is to be noted, that as Peaſe are of more generall uſe than Beanes, as for Horſe-provender, feeding of Swine, Pigeons, Pullen, and ſuch like; as alſo for bread, pottage, to boyle with or without meate, for certainly it is a moſt wholeſome and ſtrong food, as may be ſeen by the people of *Deuonſhire*, *Cornwall*, and *Somerſet-ſhire*, to whoſe great ſtrength of body not any reaſon can be given more probably than their much feeding on this Graine, and their acquaintance with much and ſtrong labour, ſo they ought with more care and circumſpection to be preſerved from all thoſe annoyances that naturally are apt to hurt them, as wormes, rottenneſſe, mould, muſtineſſe, and ſuch like.

And firſt, there is nothing better for the long and well keeping of Peaſe, than the very well drying of them

them, either in the Sunne or on the kilne, especially those which you use for bread, provender or feeding of Swine: and although some Husbands use to feede Swine with undried Pease, nay many times both undried and undrest, that is to say, the Pulse or Chaffe, not taken away, and are of opinion, that the Graine so given, sooner feedeth and puffeth up Swine then the other, yet they are deceived; for albeit it swell and puffe up a beast, yet is the flesh and fat neither so good, sound, and long lasting, as that which is gotten with drie food, nor doth it make a swine so thirsty, and the Husbandman is ever assured that when his swine drinkes not well, he feedes not well; therefore what Pease you keepe for bread or feeding of Cattell, by all meanes dry them well, and lay them either in Garners or Floores, and they will last sound and good without breeding worms or wevels, as long time as you please. But those which you keepe for foode at your owne table, as in pottage, or other uses, which must by no meanes be too much dried, because then they aske a double time in boyling, and spend a double quantity of fuell in their preparing. Some use after they be cleane thrasht and drest, to lay them in a coole close Garner, either of Plaster, Earth or Boords, of which, Plaster is the best; as for any thing that relenteth or yeeldeth moysture, as Lime, stone walles, or such like, it is most hurtfull, and immediately maketh Pease mould and rot: also it is good to lay your Pease in thicke heapes in your Garner, for that will preserve them moyst the longest time, but to spread them thinne upon the floore, by which meanes the sunne, aire, and winde may passe thorow them, is not so good, for it drieth them too soone, and taketh from them much of their sweetnesse and goodnesse, which

ought most carefully to be preserved. There be others which preserve these tender meat Pease by thrashing them up, and then letting them lie in their owne pulse or chaffe, and not dressing them but as they have occasion to use them, and questionlesse this is a very good and laudable way, for the pulse or chaffe doth maintaine them sweet and mouft, & yet keepeth them withall so warme and comfortable, that they laft much longer then any other way whatsoever, and in this manner of preserving Peaſe is to be noted, that by all meanes you must let them lie upon a dry earth floore, so long as they are in the chaffe, rather than on the boord, or on plaster, and yet in this case the boords are better than plaster.

Laftly, and which indeed is the beſt experiment of all other, if you intend to keepe Peaſe any extraordinary long time, you ſhall take Barrels or dry Caske, well and ſtrongly bound, and pitch them within exceeding well, with the beſt pitch or bitumen that you can get, and then ſprinkle the pitch all over with ſtrong Vinegar, then take your Peaſe being cleane and well dreſt, and put them into the Barrels, preſſing them downe cloſe and hard, then head up the Barrels, and let them ſtand dry and coole, and they will preſerve your Peaſe ſound, ſweet & good for any uſe whatſoever as long as you pleaſe, be it for tenne, twenty, or thirty yeares, according to the opinions of ancient Husbandmen, and other provant maſters that have lived and commanded in Townes beſieged, and Townes of Garriſon; neither ſhall any worme, mite, or weavell, ever breed in it, or offend it, nay if any have in former time beene bred in them, this manner of keeping the graine, killeth them, and deſtroyeth them for ever.

Now

Preserving of Lentils or Lupins.

Now there is another sort of Pulse which are called Lentils or Lupins, which albeit they are not so generally used for the foode or sustenance of man, yet they are for Horse, Swine, and other Cattell as much in request, as any Graine whatsoever, and indeed doe feede fatter and sooner than other ordinary Pulse, and the flesh so feadde is sweeter and pleasanter both to the eye and to the taste, then that which is fed with Beanes or Pease; also they are a Pulse very Physicall and good for many medicines, as may appeare by the workes of many learned Physitians; and these the longer they are kept, the better they are, and fuller of profit. To preserve them then in good and sound estate, it is meete to reape them in very faire weather, and to stacke them up exceeding dry, and if they be laid in the Barne, or any close house, it is not amisse, for they will endure housing better then any other Pulse, yet the sooner you beate them out of the straw, or thrash them up, the better it is, for Husbandmen suppose there is no greater hurt to this kinde of Graine, then the long keeping of it in the straw, for it is of such rank oylie, that the very straw and cods breed in it much putrifaction; and I my selfe observed both in *Spaine*, and in the neighbour Islands, where is great abundance of this kinde of Graine, that they doe not sooner gather it and bring it home, but immediately they thrash it; nay, some thrash it in the fields upon the lands where it growes, and so bring it home, then spread it on faire boorded floores in very great heapes, or else lay it up in close hutches, or bings, such as Wheate and other white Graine is to bee kept in. If you dry this kinde of Pulse in the Sunne, or upon a kiln, with a very moderate and soft fire, and then lay it

Preserving of Lentils or Lupins.

up either in close garner, or close hutch, it will last many yeares sound, good, and without corruption; there bee others Husbandmen which mixe with the graine when it is thrashed, a halfe part of hot, dry, white sand, or at least cover the whole heape of Pulse with the sand, and doe finde that it keepes the graine very sound and good many yeeres together. But to conclude, if you take strong Vinegar, and a good quantity of *Lacrpitium*, and dissolve and mixe them very well together, and then having laid your lentils or lupins together on a faire boorded floore, in large, broad and flat heapes, about two foote, or two foote and a halfe thicke with the Vinegar and *Lacrpitium* sprinkle over all the heape, and not any change of weather, frosts, wormes or other vermine shall doe them hurt, but they shall remaine sound and good as many yeares as you please to keepe them. There are other Husbandmen that instead of this before rehearsed, take onely sweete oyle, and sprinkle it all over the graine, and finde the same vertue and effect, for neither wormes nor other vermine will touch it, nor will the radicall humour thereof at any time waste or decay, but remaine strong, full and sound without any kinde of diminishing, nor shall you finde any abatement of it, or shrinking in the measure, but that which was a bushell this yeare, will be also a bushell the next yeare, and as many yeares after as you please; which is no small profit to the owner: whereas on the contrary part if the graine be either dried in the Smoke, on the Kilne, or by the winde, you shall hardly have of every such bushell so dried, three peckes and a halfe againe, which is by computation at every quarter which is eight bushells, full one bushell lost, and yet this Pulse thus preserved

ſerved as before ſaid, ſhall be as good for any uſe whatſoever fit for ſuch Corne to be imployed in, as any other dryed Graine whatſoever, and yeeld as much every way, and altogether as good meale, and as good meat.

Now touching the preſerving and keeping of Oats, it is to be underſtood that of all Graine it is leaſt caſuall, becauſe of it ſelfe naturally, it breedeth no evill vermine, and is againe preſerved and defended with a double huſke, whereby neither cold, moyſture, heat, nor drineſſe is able ſo ſoone to pierce and hurt it, as other Graines which are more thinne clad, and tender, yet becauſe it is of great and neceſſary uſe, both for Cattell and Pullen, and that neither the Huſband nor Houſewife can well keepe houſe without it, you ſhall know, that the beſt way to preſerve it longeſt, is, after it is thraſh'd, to dry it well either in the Sunne, or on the Kilne, and then either put it into cloſe Garner, or cloſe Caſke, and it will keepe many yeeres ſound and ſweet. Preſerving of Oates.

Touching the preſerving of Oate-meale, which is the inner kernell of the Oats, and a Graine of moſt ſpeciall uſe in the Huſband-mans houſe, as in his pottage, in his puddings, and in many other meats neceſſarily uſed for the labouring man; It is an experiment not altogether ſo curious as any of the reſt formerly written of, for no Oate-meale can be made, but the Oates muſt be exceedingly well Kilne-dryed, or elſe the kernell will not part from the hull, and being dri'd, as is fit, that drying is ſufficient to keepe and preſerve the Oate-meale divers yeeres: provided ever, that preſently after the making of your Oate-meale, you put it into dry cloſe Caſke or dry cloſe Garner (but Caſke is the better) and ſo as it may remaine Preſerving of Oat-meale.

exceeding dry (for any thaw or moysture corrupts it) and as neere as you can let it have, if it be possible, some aire of the fire, for the warmer it stands, the better and longer it will last, as experience sheweth.

Preserving of any meale.

For the preserving or long keeping of any sort of meale, there is no better way then first to boult and searse him from his branne, for the branne is very apt to corrode and putrifie the meale, and to bring it to a faughtinesse or mustinesse, than into very sweete and cleane dry Caske close and well bound, treade in your meale so hard as you can possible treade it, and then head it up close, and so you may keepe it either by land or water as long as you please, and when you have any occasion to spend of it, be sure to loosen no more of the meale then you presently use, for the faster and closer the meale lyeth together, the longer and sweeter it will last, for it is the gathering in of the aire that onely corrupts it.

And here is also to be noted, that you should not presently assoone as your meale is ground, boult from the bran, but rather let it lye a weeke or fortnight in the bran in some close Byng or Trough, and then after that time, boult or searse it, and you shall find it to afford you in every bushell more meale by at least halfe a pecke, then if you should presently assoone as it comes from the Mill, whence it proceeds, that the cunning skilfull Baker will ever have a weeke or fortnights provision of meale before hand, which lying so long in the bran, paies double interest for the continuance.

Now if it fall out so, that either by trade of Merchandise, or other occasion, you buy any meale by

way

way of tranſportation which is caſk'd up (as much meale is ſold by the barrell) you ſhall preſently as ſoone as you have bought it (if it be for your owne uſe or expence) breake open the heads and empty the meale upon faire ſheets on a cleane floore, and then ſpreading it abroad, let the Sunne and Aire paſſe thorow it, which will dry up the ſweat, and if there be any taint of faughtineſſe, take it away, and bring the meale to his firſt ſweetneſſe, and then immediately boult out the courſe bran, and after, as was before declared, tread it hard into freſh and ſweet caſke: and thus you may keepe your proviſion of meale all the yeere long; nay, if need require, two or three yeeres; for after the firſt ſweat is taken away, and kindly dryed, there is no doubt to be made of any that ſhall follow after.

Preſerving of all ſmall ſeeds.

Laſtly, touching the preſerving and keeping of all manner of ſmall ſeedes of what nature or quality ſo ever they be, whether Hempe, Line, Rape, Muſtard-ſeed, or any other Garden-ſeed whatſoever, though truely and properly they laſt never above one yeere, nor are fit for ſeed or increaſe after that date expired, yet in as much as they are medicinable after, and a much longer time, therefore you ſhall underſtand, that the beſt way to keepe them ſafe and ſound, and the fitteſt for uſe and profit, is, firſt to gather them as ſoone as you perceive them to be ripe, and the weather being bright, cleare, and dry, then ſhall you dry or wither them in the ſhade, and not in the Sunne, eſpecially upon a plaſtered floore, where the light looketh to the South, and be ſure, that as little Sunne and moiſture come to them as you can, for both are maine enemies; which done, bind them up in bundles, without thraſhing, and ſo hang them up and keepe them in their

owne cods, and they will laſt for all uſes, a full yeere, and for ſome particular uſes two or three yeeres; and in this manner you may alſo preſerve all manner of herbs, weedes, flowers, roots, and the barkes or fruits of all manner of trees.

CHAP. 19.

How to keepe Graine, either for tranſportation by Sea, or for uſe in a towne of Warre or Garriſon, from one yeere to one hundred and twenty.

The uſe of Graine, Pulſe, at Sea.

TO ſpeake of the Graines and Pulſes which are meeteſt for the Sea, and their ſeverall uſes.

Of Rice, and the uſe.

It is to be underſtood, that the beſt and principalleſt Graine which is indeed both moſt ſweet, moſt freſh, moſt pleaſant in taſte, and moſt long laſting, is Rice, which, although it grow not much in our Kingdome, but that we are beholden to our good neighbours for the trade thereof, yet it is in ſuch plenty, where wee fetch it, that we need neither complaine of the ſcarcity nor the coſt, and ſo much the rather, in that a peeke thereof will goe further than a buſhell of any other Graine; of this Rice, is made many good and wholeſome diſhes, ſome thicke, ſome thinne, ſome baked, ſome boil'd, as thus: If you take a quarter of a pound of Rice, and boile it in a pottle of water, till it come unto an indifferent thickneſſe, and then put into it a good lumpe of potted or barrelled Butter, and as much Sugar as ſhall ſalt-wiſe ſeaſon it to an indifferent ſweetneſſe, it is a diſh of meat, meet for an Emperour at Sea, wholeſome, good, and light of diſgeſture, and will be as much as foure reaſonable men can well eate at a meale;

meale; for the nature of the Rice is such, that it will swell in boyling, and grow to that bignesse, that in an instant it will thicken a pottle; some use the night before they boile it, to steepe it in so much water as will onely cover the Rice all over, and then the next day boile it in a pottle of water more, and the Rice so steeped will so swell, that all the first water will be drunke up, and a great deale of lesse boiling will serve to make it ready, and sure then this a man cannot finde a cheaper way to feed men, since one pinte of water, and the fourth part of a quarter of a pound of Rice (which comes not to above a halfe penny at the dearest reckoning) is a meale sufficient for a mans eating, having bisket and drinke proportionably. And this dish of meate being but thus thinne boiled, is called at Sea *Lob-lolly*, and after salt-feeding is wonderous wholesome and comfortable to any man, whether he be sicke, sound, or diseased, and both cleareth infirmities, and hasteneth the healing of all wounds. There be others, that after they have steeped this Rice (as aforesaid) doe then boyle it in like manner, till it be so thicke, that a spoone may stand upright in it, and no liquidnesse of the water perceived, then put a good lumpe of butter into it, and boyle it with it, and stirre it about, and it will make it come most cleane out of the pot in which it is boyled; then season it with Sugar and a little Cinamon, and it will be a dish of meate right good and delicate, and meet for any man of what quality soever, that is worth goodnesse or preserving, nor needs the quantity exceede the proportion already prescribed.

Againe, if you have meale in the ship, if you take of this Rice steeped in water, and a little lightly boiled and seasoned with Sugar, Cynamon and Ginger, and a

good

good quantity of Butter, and then bake it in little Pasties, you shall finde it a most delicate, pleasant, and wholesome meate; and that a penny in it, shall goe further, and give better contentment, then foure pennyworth of Beefe, Bacon, Fish, or any other hard salt meate; yet I doe not wish any man of ship-board to make this a continuall feeding dish, for it is both too pleasant, and too strong, and where evacuation of some humours are wanting, may breed inconvenience in strong bodies; but rather to use it once a weeke as a physicall nourisher, or for the comfort of sicke and diseased men, whose stomaches are taken away, or else weakened; there may be also made of this Rice, in time of necessity (being ground to a fine meale) an excellent good bread or ruske, which is pleasanter, sweeter, and much longer lasting then any made Wheate, or any other Graine whatsoever, besides many other feeds which would in this place shew but too much curiosity to repeate.

Wheat, and the use.

The next Graine unto Rice, which is of estimation and great service at the Sea, is Wheat, of which, although there be divers kinds, yet they are all alike for the serving of this purpose; only the large and thicke hull'd Wheat (being well dryed) will last the longest, but the smaller and fine skinn'd Wheat, yeelds the purer flower, and makes the better meat. Now of this Wheat is to be made divers dishes of meat; for some doe take it, and bruise it or beat in a bagge, till the upper skin be beaten off, and then having drest and winnowed it, boile it in cleane water till it burst, and grow as thicke as pap, and then take it from the fire, and being hot, put into severall dishes of wood, or traies, so much in every dish or tray as may serve foure

boon

men, and ſo let it coole; then give it to the ſicke or ſound, as you ſhall be directed, and it is an excellent wholeſome good meat, either cold or elſe hot, and a little Butter melted with it, or being againe boild in freſh water, and ſeaſoned with Salt and a little Sugar, it makes an excellent grewell, or Lob-lolly, which is very ſoveraigne at Sea; alſo your parched Wheat is a very good food at Sea, and of much requeſt and eſtimation, being ſprinkled with a little Salt, and of this food a little will ſerve a man at a time, by reaſon that the much ſweetneſſe thereof ſoone filleth and cloyeth the ſtomach, yet it is wondrous light of digeſtion, and breeds great ſtrength, and much good blood, as wee daily find by experience.

Of Oat-meale, and the uſe.

The next Grain unto this which is to be recommended to the Sea (and which is indeed not any thing inferiour to either of the other going before, both for ſtrength and laſting) is Oat-meale, which by reaſon of the great drineſſe, and drying thereof, feeles little or no imperfection at the Sea, as being unapt to ſucke or draw in any of the ill or moiſt vapors thereof. Of this Oat-meale is made many good, freſh, and comfortable meates at Sea, as Grewell, or Lob-lolly, by boyling it in freſh water, and ſeaſoning it with Salt, and (if you have it continually) ſometimes with Sugar and a few Currants, and a little Mace, which is meat of great ſtrength and goodneſſe, eſpecially for ſuch as are ſicke and weake, for it is a great reſtorer of Nature, and a purger of the blood; alſo to ſteepe the whole Grots of Oat-meale a night in water, and then draining them, and putting it into a bag, boile it till the Grots breake, then putting it out of the bag, butter it with Butter, and it is an excellent food; alſo boyling Oat-meale in freſh water with Barme, or dregges and hinder ends of your

your Beere-barrells, makes an excellent good pottage, and is of great use in all the parts of the West country, especially, where Marriners or Sea-men live, and are called by the name of Drousson pottage. Also of Oat-meale is made that meat which is called in the West, Washbrew, and may be made at the Sea at your pleasure, being a meat of that great account amongst *Devonshire* and *Cornish-men*, that they will allow it no parallell; and for mine owne part, I have heard a most famous and well-learned Physitian in those parts, allow it to be a meat of singular great strength & goodnesse, and withall so light of digestion, that a man can very hardly surfeit upon it at any time; and I am the rather induced to believe the same, because I have observed and seene many of the labouring men of that Country to eate such an unmeasurable quantity thereof, that in mine eye one mans supper would have served a whole family.

But you will say, hunger and labour are such excellent sawces, that they will digest any thing. To that I answer, that I have seene Gentlemen and Gentlewomen of that Countrey, of whom as much curiosity hath attended, as is liable to the City, nay, such as have had sicknesse their best familiar, yet eate of this with great and sharpe appetite, and when health was most to be feared, then to boast of most soundnesse. This Washbrew is to looke upon, like Painters Cize, or new made Jelly, being nothing but the very heart of the Oat-meale boyled and drained to that heighth and thicknesse, having neither hull nor bran in it, but the pure meale and water, and it is to be eaten either with Wine, strong Beare, or Ale, or with clarified Honey, according to mens stomaches or abilities.

Now

Now this the eaters thereof affirme, that by no meanes it must be chawed, but rather swallowed by the spoonfull whole, because chawing like a pill makes it taste unpleasantly. There is againe another meat to be made of Oatemeale, which is called Girtbrew, and is somewhat more course, and lesse pleasant than Washbrew, having both the bran and huls in it, yet is accounted a foode of a very good strength, and exceeding wholesome for mans body, and of my knowledge much used and much desired of all labouring persons that are acquainted with it: Many other foods there are to be made of Oatemeale, but these shall be at this time fully sufficient.

Of Barley and the use.

The next graine to this I account Barley, which may be every way used like unto wheat, either to make grewell, to be creyed, parcht, or boyled: and of Barley for this purpose of foode, the best is *French-barley*; the next is Barley big, or beare Barley; and the worst are the spicke or battledore Barley, and our common *English-barley*.

Bucke, and the use.

And as Barley or Wheate, so you may use your Bucke and your *Indian Silligo*, for they are of like nature, onely aske a longer time in their beating, steeping, and boyling, because they are naturally more hard, and more dry, by reason of the heate of the Climate in which the best grow; and is ever to bee observed for a rule, that the dryer you keepe your Corne at Sea, the better it is, the sweeter and longer lasting.

Now having shewed the use of these lighter grains, I will come to Pulse, and shew their use and benefit at the Sea, or in besieged Townes: and of Pulse, I will first speake of Beanes as a principall food, wholsome and

Of Pulse, and first of Beanes, the use.

and ſtrong, & though not ſo fine and light of digeſtion as any of the former, yet exceeding hearty and ſound, and a great breeder of good blood; they are for the moſt part to be boyled whole, till ſuch time as they appeare ſoft and tender, or begin to breake, and then drained from the water, are ſerved in traies, and well ſalted, and ſo eaten; a pottle whereof is thought a full proportion for foure men: and of theſe Beanes there are diverſe kinds, as the common garden beane, or the French beane, which is great, broad, and flat, and

The French Beane.

theſe are the beſt to boyle, either with meate, or by themſelves, and aske the leaſt labour, becauſe their outer skinne is moſt tender, and the inward ſubſtance moſt apt to be mollified and ſoftened: they may alſo be boyled both when they are young and greene, and when they are old and dry, and the meat at both times is good and ſavory.

The kidney Beane.

The next beane to theſe are the Kidney beane, which is flatter, and leſſer, and neerer the proportion of a Kidney then the French beane is, and this is alſo a garden beane, and whilſt it is young and greene is to be eaten Salet-wiſe after they are boyled, both the cod and beane together, and it is certaine a better ſalet cannot bee taſted; for the cod or huske is every way as excellent in taſte as the beane is; but after they grow old and dry, and that the moyſture is gone out of the cod; then it is meete to thraſh them, and then boyle them like the French beane, and they are every way as good meate, and as ſoone boyled and as tender.

Common field beanes, the uſe.

The next beane to theſe are your common and ordinary field beanes, which having tough and hard skins, aske more boyling then the other beanes, & are ſome-

what

what harder in taſte, yet a good ſound foode alſo: there be many that parch them in the fire, and thinke them then the beſt meate, becauſe the fire ſooner breakes the skinne and ſoftneth the kirnell; but they cannot be done ſo abundantly, and therefore are not ſo much in uſe.

Of peaſe and the uſe.

After this great ſort of Pulſe, I will now ſpeake of the ſmaller ſort, as Peaſe and their like: and of Peaſe there be two kinds, the garden Peaſe, and the field Peaſe, and for this uſe (albeit both are very good) yet the garden peaſe are beſt, for they are ſooneſt boyled, and are moſt tender, and ſerve for moſt uſe, as for potage, boyling, parching or ſpelting; and of theſe garden Peaſe, there are diverſe kinds; as white Peaſe, French Peaſe, haſtings, rounſivals, and ſuch like; the firſt being the longeſt laſters, the ſecond the pleaſanteſt in taſte, the third the earlieſt and tendereſt, and the laſt largeſt and fulleſt.

Severall ſorts of garden peaſe.

The field Peaſe are onely of two kinds, as the white peaſe and the gray peaſe, and they ſeldome make pottage, becauſe they are unapt to breake, but are onely for boyling and making of leap Peaſe, or for parching, yet a good and a ſtrong food alſo: and as we uſe Peaſe, ſo in other Countries they uſe lupins, lentil, tares, fetches, and ſuch like ſmaller pulſe, but they are neither ſo good, wholeſome, nor favoury in taſte, being a kind of graine more ranke, fulſome, & breeding of ill blood and infection within, theſe in caſes of Sea-fare & Warfare ought principally to bee eſchewed and ſhunned.

Now it reſteth after this long digreſſion of theſe ſeverall Graines, & their uſes, with the meates and profits which are made for them, that we come to the ſafe manner of keeping and preſerving them either by land or water, for victuall or tranſportation, ſo as they

they may last and endure without ill smell or rottennesse.

To transport Graine.

And first for transportation of Graine by Sea, it is two waies to be done, as either in great quantities for trade and the victualling of other Nations, or in smaller quantity for victualling the men in the ship, prepared for a long and tedious voyage.

Transporting Graine for trade.

For the transporting of Graine for trade in great quantities, it is to be intended the voyage is seldome long, but from neighbour to neighbour, and therefore commonly they make close deckes in the ships to receive the Graine, faire and even boorded, yet if such deckes be matted and lined both under and on each side, it is much the better, and this matting would be strong and thinne; there bee some which make the deckes onely of mats, and sure it is sweet, but not so strong as the boord, therefore the best way of transportation is to have strong boorded deckes well matted, and then spreading the Corne of a reasonable thicknesse, to cover it with matting againe, and then to lay Corne on it againe, and then mats againe, that betweene every reasonable thicknesse of Graine a mat may lie, the profit whereof is, that when the Corne with his owne heate and the working of the Sea shall beginne to sweate, which sweat for want of aire to drie it up, would turne to putrifaction, then these mats thus lying betweene, will not onely exhale and sucke up the sweate, but also keepe the Corne so coole and dry, that no imperfection shall come unto it: and here is to bee noted, that these mats should rather be made of dry white bents, then of flagges and bulrush, for the bent is a sinne, dry crispe thing, and will not relent or sweat of it selfe, but the flag or bulrush is a spungy and soft substance which

is

is never empty of his owne and other moystures.

Now for transporting of Graine, for Victualls for the ship, which is in much smaller quantity, because it is but for the private use of a few within the ship; the only best and safest way, is, to take Salt-fish barrells, or any Caske in which any Salt-fish hath beene piled, as Cod, Herrings, Salmon, Sprats, or any other powdred Fish; and whilest the vessells are sweet, you shall calke them both within and without plaster, daubing them all over; then into them put your Graine of what kind soever it be, and head them up close, and then stow them in such convenient dry place of the ship, as you shall thinke fit, and questionlesse, if beliefe may be given to the worthiest Authors which have writ in this kinde, you may thus keepe your Graine sweet, sound, and in full perfection from one yeere to an hundred and twenty yeers; but certainly daily experience shews us, that all kind of Graine thus put up and kept, will remaine sound & sweet, three, foure, and as some say, seven yeeres, for so far hath lately been try'd: and what here I speake of ship-boord, the like may be done in any town of War or Garrison, whether besieged, or not besieged, or in any other place, where any necessity shall compell; the proofe of this manner of piling or putting up of Graine, serveth as well for Land as Sea.

Transporting for victuall.

CHAP. 20.

The enriching of all manner of barren Grounds, and to make it fruitfull to beare Hops.

THe Hop of all Plants is the most tender, and can endure neither too rich a ground, nor yet too poore, for being planted in the first, it bringeth forth onely leaves and no bells, and in the latter yeeldeth neither leaves nor bells.

Abating fertility.

Now in the first sort of ground, which is fertile and rich, I have nothing to doe, but onely to advise how you may allay and lessen that too much fatnesse, by mixing your hills well with Chalke, or small sharpe gravell; if it be a hassell or mix'd mould, and with good store of red sand if it be a stiffe clay, for either of these mixtures will in short space abate any fertility.

Increasing of fertility.

But if the soile be contrary to this, that is, extreme barren, then you shall seeke by these meanes following to encrease the fertility: First, when you have taken view of that barren earth, which you intend to convert to a Hop-garden, you shall first

Choice of a Earth.

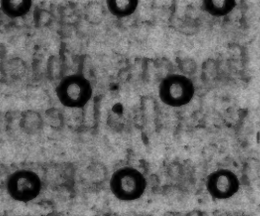
looke to the situation thereof, whether it lie high or low, whether it be subject to inundations or drownings, or that it lie safe and free from any such annoyance: If it be subject to great and deepe overflowes, then it is no ground for this purpose; but if it be

Of for Draining water.

onely liable but to some small washings, then you may by a few small draines and sewers cast thorow your allies, convey away the water unto some lower ground, so as it may not continue long in the Gardens to doe hurt. Besides, for a further safety to the Hop, you shall make your hills a great deale bigger and higher, that when any over-flow shall happen, the water may not reach above the mid part of the hill at the most, for the root may indure moystning, but not drowning: and this water thus running through the allies, and not drowning the roots, will bring to the ground very much fertility. But howsoever, after you have eas'd your ground of these particular faults, yet the generall fault which is barrennesse, will remaine still: therefore, having plotted out your Garden, and fenced

ced it ſufficiently about, you ſhall then caſt up your hills about *Michaelmas*, placing them in a very orderly manner, and making allies betweene them of foure or five foot bredth betweene hill and hill, ſo as a man may walke at pleaſure through and about them, neither ſhall theſe hills ſtand all directly behind another, for ſo one will over-ſhade another, which is an annoyance, but according to this Figure, where there is a largeneſſe of ſpace, and a by-paſſage, through which the Sunne may come to give comfort to every Plant.

Caſting of the hils and allies.



Theſe hills, if the ground be free from water, may be raiſed about two foot, or a foot and a halfe high, and of a compaſſe anſwerable to the height; neither ſo little, that the hill may be ſharpe like a Sugar loafe, not yet ſo bigge, that the hill may lie flat, and ſo retaine and hold any raine, or wet, which ſhall fall upon it; but you ſhall keepe a due middle proportion, making the hill convenient for your Plants and Poales, and ſo as it may ſhoote or put off any wet, or other annoyance which ſhall fall upon it.

Now theſe hills you ſhall not make entirely, all of the one mould, but you ſhall take, as it were, a third part or better thereof; then another part of the earth which lieth under dung-hills, and the laſt part of Sope-aſhes, and theſe three bodies you ſhall mixe equally together, and of them compound your Hop-hills. But if this ſeeme ſomewhat too difficult, and that you cannot find enough for your purpoſe of either of theſe meanures; then you may take three parts of the naturall earth, and but onely a fourth part of the other two, and thereof mixe your Hop-hills,

The compoſition of the enriching of hils.

and it will be ſufficient to afford you profit enough; provided you be able once in three or foure yeeres to renew it, for ſo long this will laſt in full ſtrength and power.

Preparing of the allies.

When you have thus made up your hills, you ſhall then pare up with a paring ſhovell, all the greene ſwarth quite thorow all your allies, at leaſt foure fingers thicke, and with the ſwarth ſo pared up, you ſhall cover all your hills almoſt to the top, turning the greene ſwarth next unto the earth, ſo as it may rot, for that is an excellent meanure alſo. Then when your allies are all thus cleanſed of their ſwarth, you ſhall take good ſtore of Braken or Ferne, and ſtraw it all over quite thorow the allies, that it may lie a good thickneſſe, almoſt to the midſt of the hills, which having all the Winter to rot in, will not only be an exceeding comfort to the hills, and preſerve both them and their Plants from many evills, but alſo being ſhovelled up together with the earth in the Spring time, will be a marvellous ſtrong meanure wherewith to repleniſh the hills, and to make them to proſper exceedingly, and to ſave much other coſt and charges, as well in meanure as in carriage.

The planting of Hops.

When your hills are thus enriched, and your allies thus prepared, you ſhall then open your hills in the tops, and ſet your Plants, that is to ſay, in every hill foure Plants at the leaſt, being well prepared, and this ſhould be done in the moneth of *October*, and theſe Plants muſt be ſet good and deepe in the earth, and covered all over, at the leaſt foure fingers thicke; and if with the earth which covereth theſe Plants, you mixe Oxe-blood and Lyme, it will not onely give great comfort and nouriſhment to the Plants, but alſo defend and ſave the roots from wormes and other vermines,

vermines, which otherwiſe would ſeeke to deſtroy them.

After your Garden is thus planted all over, you ſhall then let it reſt to the following Spring, and about *April*, finding the ſmall twines of your Hops iſſued out of the hills, and running alongſt the ground, you ſhall then ſet up your poales, which poales, ſo they be long and ſtreight, may be of any wood you pleaſe, as either Aſh, Elme, Withy, Willow, or Sallow, and in ſetting up of theſe poales, you ſhall have two very carefull reſpects: Firſt, that in putting in of the poals, and faſtening them within the earth, you doe not hurt the Hop-roots, which a ſmall careleſneſſe may doe, but be ſure to ſet them cleare at the roots: and that you may doe it the better, and make your poales to ſtand the faſter, it is good that you have an iron Augar wherewith firſt to pierce the ground, and then to put the poale in after, and ſo ram it in hard, that it may not ſtirre: the ſecond care is, that you place not one poale to overſhadow another, but that they may ſtand ſo cleare one from another, that which way ſoever the Sunne ſhall caſt his beames, yet every plant (as it winds about the poale) may be an equall partaker of the ſame; this with a ſmall obſervation in the ſetting up of the poales may eaſily be performed. The number of poales that you ſhall ſet upon every hill, muſt be anſwerable to the Syens which ſhall iſſue from the roots, allowing to every poale two Syens at the leaſt, and not above three at the moſt. Theſe Syens (when your hills are poaled) you ſhall with your hands twine about their ſeverall poales, and thoſe which are but new peeping from the ground you ſhall ſo fold among the other branches, as they may of themſelves run about the poale; and as theſe ſo alſo all

Poaling of Hops.

the other twigs, which are any way derived from the maine Sien, leaving not any at all to runne upon the ground, for that is altogether profitlesse, and to no use.

Of weeding Hops.

For the weeding of this barren earth thus made into an Hop-garden, there is little care to be had: for first the Sope-ashes wherewith the hills are meanured, the Oxe-blood and the Lime, are such enemies to all manner of weeds, that they will not suffer any to grow where they abide: Next the Braken and Ferne which covereth the allies, is such a poysoner and smotherer of any thing that shall grow underneath it, that it will not suffer any weed to peepe or spring up through it; yet if in any especiall place where neither of these defences come, it happen that any weeds doe grow, then you shall with your best care cut them away, or pull them up, and so your Garden shall remaine comely, pleasant and fruitfull to every prospect.

CHAP. 21.

A generall computation of men, and cattells labours: what each may doe without hurt daily.

Plowing and Sowing.

TO speake generally of all husbandly workes where the Country is tollerable without any extraordinary difficulty, you shall understand, that a man may well in stiffe ground, plow an acre, or an acre and a halfe, and in light sandy grounds, two or three acres with one Teame in a day, and hee may plow and sow in stiffe ground two acres and a halfe each day, and in light ground foure at least with one Teame, and alwaies what hee soweth, that hee may harrow the same day also.

A man

A man may well mow of good and deepe loggy meadow, or of rough uneven meadow, every day one acre, mowing cleane, and making a ſmooth boord: of well ſtanding and good ſmooth meadow an acre and a halfe each day: and of very thin and ſhort graſſe, or upland meadow two acres at the leaſt every day. Mowing.

Alſo, he may mow of corne, as Barley and Oates, if it be thicke, loggie and beaten downe to the earth, making faire workes, and not cutting off the heads of the eares, and leaving the ſtraw ſtill growing, one acre and an halfe in a day: but if it be good, thick and faire ſtanding corne, then hee may two acres, or two acre and a halfe in a day: but if the corne be ſhort and thin, then he may mow three, and ſometimes foure acres in a day, and not be over-laboured: Alſo of Beanes he may mow as much, and of Peaſe mix'd with Beanes, having a hooke to follow him, no leſſe; for they are workes in this nature moſt eaſie, and leaſt troubleſome.

One man with a binder may well reape an acre of Wheat, or Rye in a day, if it be principall good and well ſtanding, but if it be laid or beaten downe with weather, then three rood is fully ſufficient for a daies labour; but if it be thin and upright ſtanding, then hee may reape and bind five roods in a day: of ſmall Peaſe, Fetches, and ſuch like, a man may well reape two acres every day. Reaping.

Now for aſmuch as it is a cuſtome in divers Countries (and truly it is exceeding profitable and worthy imitation) to ſheafe and bind up both Barley and Oats, as well as Wheat or Rye, and that it both ſaveth much corne, and alſo makes it take a great deale leſſe roome, and that this labour is to be done after the mowers, as the other was after the reapers, by gathering the Barley Binding of Barley and Oates.

ley or Oates up with a ſickle or hooke, as it lies in the ſwath, and ſo binding it in ſheaves, you ſhall underſtand, that one man in a day, will bind as much as one mower can mow, and if the men be any thing ſkilfull in the labour, two binders will bind as much as three mowers can mow.

Gathering in of Graine.

For the gathering or inning of graine, no man can proportion the number of loads, or quantity of ground ſhall daily be brought home, ſith the iourneyes are uncertaine, ſome going a quarter of a mile, ſome halfe a mile, and ſome a mile: therefore it is the Husbandmans beſt way the firſt day to goe with his Teame himſelfe, and both to obſerve the labour and diſtance of place, and by that to compute what may be done after without hurt to his Cattell, and where hee failes of any hope, there to take a ſtrict account of the errour; for it is either ignorance or careleſſeneſſe, which brings forth miſchances, ſpeaking of husbandry, as over-throwing the Teame, over-loading the Teame, breaking neceſſary Inſtruments, or not reſpecting the waies and paſſage, any of which may in a day hinder more than halfe the daies labour.

Ditching.

Againe, a man may in a day ditch and quickſet of a reaſonable ditch foure foot broad, and three foot deepe, a rod or a poll a day, allowing ſixteene foot to the rod, and ſo of larger meaſure leſſe ground, and of leſſe ground larger meaſure, according to the ſufficiencie of the fence which you purpoſe to make.

Hedging.

A man alſo may hedge in a day, if the hedge be good and ſubſtantiall, that is to ſay, five foot high, well bound, thicke ſtack'd, and cloſe layd, two rod in a day, and if the worke be lower or thinner, then double ſo much, according to the former proportion.

For

For this plashing of hedges, or making a quick fence, if he doe it work-manly, and that the growth be high, and well growne, and then he lay it thicke, close, and strongly bound on the top, turning the quicke downeward and inward, to plash a rod a day, is as much as any man can well doe, but if yee plash it after the West-country fashion, that is, onely cutting it downe, and laying it along close to the ground, seeking only thicknesse, and not much guard or comelinesse, then he may well plash a rod and a halfe in a day without trouble, and sure in this worke is great care and art to be used, as well for the preservation of the quicke, as the goodnesse of the fence, being a thing of worth and validity to every Husband-man. Plashing.

Againe, a man may delve or digge, as for Garden-mould, Hempe-yard, Flaxe-yard, or for the setting of Corne, or levelling of uneven places, one rood in a day, and the ground so digged and delved, he may rake, dresse, and levell, in the same day also, but if he digge it deepe, and trench it, and meanure it, as is meete; either for Garden, Orchard, or Corne-setting, then to delve halfe a rood in a day, is a very great proportion, because ordinarily to delve, as to receive ordinary seeds, requires but one spade graft in depth, but extraordinarily to delve, as for inriching and bettering of the ground, and to cleanse it from stones, weeds, and other annoyances, will require two spade graft at the least. Delving.

Lastly, a man may thrash if the Corne be good and cleane, without some extraordinary abuse or poverty in the graine, in one day foure bushells of Wheat or Rye, six bushells of Barley or Oats, and five bushells of Beanes or Pease, but the Pulse must then be imagined to be exceeding good, otherwise a man shall thrash lesse Thrashing

of

of it, then of any other kinde of graine, for as when it is well loaden, it yeeldeth plentifully, so when it is poore and lightly loaden, it yeeldeth little or nothing, and yet hath not one ſtroke leſſe of the flaile, nor any labour ſaved more then belongs to the beſt Pulſe whatſoever, being ever at leaſt three times turned, and foure times beaten over.

The particular expence of a day.

Having thus generally runne over (in a ſhort computation) the labours of the Huſbandman, I will now briefly as I can, goe over the particular daies labours of a Farmer or Plowman, ſhewing the particular expence of every houre in the day, from his firſt riſing, till his going to bed, as thus for example; we will ſuppoſe it to be after *Chriſtmas*, and about plow-day (which is the firſt letting out of the Plough) and at what time men either begin to fallow, or to break up Peaſe earth, which is to lie to bait, according to the cuſtome of the Country; at this time the Plough-man ſhall riſe before foure of the clocke in the morning, and after thankes given to God for his reſt, and the ſucceſſe of his labours he ſhall goe into his ſtable, or beaſt-houſe, and firſt he ſhall fodder his cattell, then cleanſe the houſe, and make the booths cleane; rub downe the catteil, and cleanſe their ſkins from all filth, then hee ſhall curry his horſes, rub them with clothes and wiſps, and make both them and the ſtable as cleane as may be, then he ſhall water both his Oxen and Horſes, and houſing them againe, give them more fodder, and to his Horſe by all meanes provender, as chaffe and dry Peaſe or Beanes, or Oat-hulls, Peaſe or Beanes or cleane Oates, or cleane garbage (which is the hinder ends of any kinde of graine but Rye) with the ſtraw chop'd ſmall amongſt it, according as the ability of the Huſbandman is.

And

And whilst they are eating their meat, he shall make ready his collars, hames, treats, halters, mullens, and Plough-geares, seeing every thing fit, and in his due place, and to these labours I will also allow full two houres, that is, from foure of the clocke till sixe, then shall hee come in to breakefast, and to that I allow him halfe an houre: and then another halfe houre to the gearing and yoaking of his Cattell, so that at seven of the clocke hee may set forward to his labour, and then he shall plow from seven of clock in the morning, till betwixt two and three in the afternoone, then hee shall unyoake, and bring home his cattell, and having rubb'd them, dresst them, and cleansed away all durt and filth, hee shall fodder them, and give them meate, then shall the servants goe in to their dinner, which allowed halfe an houre, it will then be towards foure of the clocke, at what time hee shall goe to his Cattell againe, and rubbing them downe, and cleansing their stalls, give them more fodder, which done, he shall goe into the Barnes, and provide and make ready fodder of all kinds for the next day, whether it be hay, straw, or blend fodder, according to the ability of the Husbandman: this being done, and carried into the stable, Oxe-house, or other convenient place, he shall then goe water his cattell, and give them more meate, and to his Horse provender, as before shewed: and by this time it will draw past sixe of the clocke, at what time he shall come in to supper, and after supper, he shall either by the fire side, mend shooes both for himselfe and their family, or beat and knock hemp, or flaxe, or picke and stampe Apples, or crabs for cider or verdjuce, or else grind Malt on the quernes, picke candle rushes, or do some husbandly office within dores, till it be full eight a clocke: Then shall he

take

take his Lanthorne and candle, and goe to his cattell, and having cleanſed the ſtalls and plankes, litter them downe, looke that they be ſafely tied, and then fodder and give them meat for all night, then giving God thankes for benefits received that day, let him and the whole houſhold goe to their reſt till the next morning.

Now it is to be intended, that there may be in the houſhold more ſervants then one, (and ſo you will demand of mee, what the reſt of the ſervants ſhall be imployed in before and after the time of plowing: To this I anſwer, that they may either goe into the Barne and thraſh, fill or empty the Malt-fat, load and unload the Kilne, or any other good and neceſſary worke that is about the yard, and after they come from plowing, ſome may goe into the Barne and thraſh, ſome hedge, ditch, ſtop gaps in broken fences, dig in the Orchard or Garden, or any other out-worke which is needfull to be done, and which about the Huſband-man is never wanting, eſpecially one muſt have a care every night to looke to the mending or ſharpening of the Plough-irons, and the repairing of the Plough and Plough-geares, if any be out of order, for to deferre them till the morrow, were the loſſe of a daies worke, and an ill point of huſbandry.

Particular labours of cattell.

Now for the particular labours of Cattell, though it be already inclufively ſpoken of in that which is gone before, where I ſhew you how much a man may conveniently plow in a day with one Teame or Draught of Cattell, yet for further ſatisfaction, you ſhall underſtand, that in your cattell there are many things to be obſerved, as the kind, the number, and the ſoile they labour in, for the kind, which are Oxen, Bulls, or Horſes, the beſt for the draught, are Oxen, and

the

the reasons I have shewed in my former Workes, the next are Horses, and the worw Bulls, because they are most troublesome; the number fit for the Pough, is eight, sixe, or foure; for the Cart, five or foure; and for the Waine, never under sixe; except in leading home of harvest, where loading easily, foure very good Oxen are sufficient; for the soile, if it be of the toughest and deepest earth, eight beasts can doe no more but fallow or breake up Pease-earth, no, nor fewer stirre, if the season grow hard and dry; for soyling, winter rigging, and seed furrow, sixe beasts may dispatch that labour: if the soile be mix'd and hassell, then sixe may fallow and sow Pease, and foure doe every other ordure: but if it be light and easie sand, then foure is enow in every season. For the quantity of their worke, an Oxe-plough may not doe so much as a Horse-plough, because they are not so swift, nor may be driven out of their pace, being more upt to surfeit then Horses be, so that for an Oxe-plough to do an Acre, and a Horse-plough an Acre and a rood, or an Acre and an halfe in good grounds, is worke fully sufficient.

CHAP. 22.

The applying of Husbandry to the severall Countries of this Kingdome, wherein is shewed the office and duty of the Carter or Plow-man.

IT is to be understood, that Husbandry doth vary according to the nature and climats of Countries; not one rule observed in all places, but according as the earth, the aire, the much or little heat, moisture or cold doth increase or diminish, so must the skilfull Husbandman alter his sea-

sons, labours and instruments; for in stiffe Clayes, as are all the fruitfull Vales of this Kingdome (of which I have named most part in a Chapter before) as also *Huntington-shire*, *Bedford-shire*, *Cambridge-shire*, and many other of like nature, all manner of arable workes must be begun betimes in the yeere, and the Ploughes and Instruments must be of large size and strong timber, and the labour great and painfull: so also in mixt soiles that are good and fruitfull, as *Northampton-shire*, *Hartford-shire*, most part of *Kent*, *Essex*, *Barke-shire*, and Countries of like nature, all arable toiles would begin at latter seasons, and the Ploughes and Instruments would be of middle size, and indifferent timbers, and the labour somewhat lesse then the other: but the light sandy grounds which have also a certaine naturall fruitfulnesse in them, as in *Norfolke*, *Suffolke*, most part of *Lincoln-shire*, *Hamp-shire*, *Surry*, and Countries of that nature, all arable toiles would begin at the latest seasons, and the Ploughs and instruments would be of the smallest and lightest size, and of the least timber, and the labour of all other is easiest.

Lastly, for the barren unfruitfull earths (of which onely I have written in this Booke) as is *Devon-shire*, *Cornewall*, many parts of *Wales*, *Darbi-shire*, *Lancashire*, *Cheshire*, *Yorke-shire*, and many other like, or worse than they; the arable toiles would have a fit season of the yeere, according to the temperatenesse of the yeere, which if it happen earely, then you must begin your labours at later seasons, and for your Plough and Instruments, they must not keepe any certaine proportion, but be framed ever according to the ground, the stronger and stiffer ground having ever the strong and large Plough, with Instruments of like kinde, and the lighter earth a Plough

and

and Instruments of more easie substance; as for the labour, it must be such, and no other, than that which hath beene already declared in this Booke.

And hence it comes that the office and duty of every skilfull Plough-man, or Carter, is first to looke to the nature of the earth, next to the seasons of the yeere, then to the customes and fashions of the place wherein he liveth: which customes, although they be held as second natures amongst us, and that the best reasons of the best worke-men commonly are, that thus I doe, because thus they doe; yet would I wish no man to bind himselfe more strictly to custome, than the discourse of reason shall be his warrant, and as I would not have him too prejudicate in his owne opinion, so I would not have him too great a slave to other mens traditions, but standing upon the ground of reason made good by experience, I would ever have him profit in his owne judgement. The Carters office.

Now the further office and duty of the Husbandman, is with great care and diligence, to respect in what sort of fashion to plow his ground; for although I have in the former Chapter shewed how hee shall lay his furrowes, what depth he shall plow them, and how hee shall be able to raise and gaine the greatest store of mould, yet is there also another consideration to be had, no lesse profitable to the Husbandman than any of the former, and that is, how to lay your lands best for your owne profit and ease, as also the ease of your Cattell, which shall draw within your draught: as thus for instance: If your arable land shall lie against the side of any steepe hill (as for the most part all barren earths doe) if then you shall plow such land directly against the hill, beginning below, and so ascending streight upright, and so downe againe, and

up

up again; this very labour and toiling againſt the hill will breed ſuch a bitter wariſomneſſe to the cattell, and ſuch a diſcouragement, that you ſhall not be able to compaſſe one halfe part of your labour; beſides, the danger of over-heating and ſurfeiting of your beaſts, whence will ſpring many mortall diſeaſes: Therefore when you ſhall plow any ſuch ground, be ſure ever to plow it ſide-waies overthwart the hill, where your beaſts may tread on the level ground, and never directly up and downe, ſo ſhall the compaſſe and meaſure which you lay upon the ground not be ſo ſoone waſh'd away from the upper part of the ground, becauſe the furrowes no lying ſtreight downe in an even deſcent, but turned croſſe-wiſe upward againſt the hill, it muſt neceſſarily hold the ſoile within it, and not let it waſh away.

Of Cattell for draught.

Againe, it is the office of every good Plow-man, to know what Cattell are meeteſt for his draught; as whether Oxen, or Horſe, or both Oxen and Horſe: wherein is to be underſtood, that although of all draughts whatſoever within this Kingdome, there is none ſo good to plow withall, both in reſpect of the ſtrength, ſtability, indurance, and fitneſſe for labour, as the Oxen are, in whom there is ſeldome or never any loſſe, becauſe whenſoever his ſervice faileth in the draught, his fleſh will be of good price in the ſhambles; yet notwithſtanding, in this caſe a man muſt neceſſarily bind himſelfe much to the cuſtome of the Country, and faſhion of his neighbours; for if you ſhall live in a place where fuell is ſcarce, and farre to be fetch'd, as commonly it is in all barren Countries, which, for the moſt part, are ſtony Champaines, or cold Mountaines; and your neighbours as well for the ſpeed of their journies, as for the length,

keepe

keepe horse draughts: In this case you must also doe the like, or else you shall want their companies in your journey, which is both discomfort and disprofit if any mischance or casualty shall happen, or being inforc'd to drive your Oxen as fast as they doe their horse, you shall not only over-heat, tire, bruise, and spoile them; but also make them utterly unfit either for feeding or labour: and therefore if your estate be meane, and that you have no more but what necessity requires, then you shall sort your Plough or Teame according to the fashion of your Country, and the use of your neighbours: but if God have bleft you with plenty, then it shall not be amisse for you to have ever an Ox-draught or two to till your Land; and a Horse-draught to doe all your forraine and abroad businesses: so shall your worke at home ever goe constantly forward, and your outward necessary provisions never be wanting. Now for the mixture of Oxen and Horse together, it falleth out oftentimes, that the Plough-man must of force be provided with Cattell of both kind, as if he happen to live in a rockie Country, where the steepnesse of the hills, and narrownesse of the waies, will suffer neither Cart, Waine, nor Tumbrell to passe; in this case you shall keepe Oxen for the Plough to till the ground with, and Horses to carry pots or hookes: the first to carry forth your meanure, and the other to bring home your Hay and Corne-harvest, your fuell, and other provisions which are needfull for your family; as they do both in *Cornwall*, and all other mountainous Countries, where Carts and Waines, and such like draughts have no possible passage.

Againe, it is the office and duty of every good Plough-man to know his severall labours for every severall Month through the whole yeere, whereby no

day nor houre may be mis-spent, but every time and season employed according as his nature requireth: as thus for example.

January. In the Moneth of *January*, the painfull Plough-man, if he live in fertile and good soiles, as amongst rich, stiffe, simple clayes, hee shall first plow up his Pease-earth, because it is unfit for to take seede before it be sowne; but if hee live in fruitfull well mixed soiles, then in this Moneth hee shall begin to fallow the field he will lay to rest the yeere following; but if he live upon hard barren earths (of which chiefly I write) then in this Moneth hee shall water his Meadowes and Pasture grounds, and he shall draine and make dry his arable grounds, especially where hee intends to sow Pease, Oats, or Barley, the seed-time following. Also he shall dub up all such rough grounds as hee intends to sow the yeere following; and shall meanure and trim up your Garden-mould, you shall comfort with meanure, sand, or lyme, or all three mixt together, the roots of all barren fruit trees: also you shall dowse all such timber, only there will be losse in the barke, for the time is somewhat too early for it to rise. Lastly, you may transplant all sorts of fruit-trees, the weather being open, and the ground calme. You may reare Calves, remove Bees, and for your own health keepe your body warme, eat good diet, and wholsome be your Physitian, and rather with exercise then sauce, increase your appetite.

February. In the Moneth of *February*, either set or sow all sorts of Beanes, Peaze, and other Pulse, and the sooner your ground is, the sooner begin your worke, prepare your Garden-mould, and make it easie and tender, prune and trim all sorts of Fruit trees from mosse, cankers and all superfluous branches, plash your hedges, and lay

lay your quick-sets close and intire together; plant Roses, Gooseberries, and any fruit that growes upon little bushes; graft at the latter end of this moneth upon young and tender stockes, but by all meanes over-lade not the stockes.

Lastly, for your health, take heed of cold, forbeare meats that are slimy and phlegmaticke, and if need require, either purge, bathe, or bleed, as Art shall direct you.

In the moneth of *March*, make an end of sowing of all sorts of small Pulse, and begin to sow Oats, Barley, and Rye, which is called *March*-Rye; graft all sorts of fruit-trees, and with young Plants and Syens repleniſh your Nurcery, cover the roots of all trees that are bared, and with fat earth lay them close and warme: If any tree doe grow barren, bore holes in the root, and drive hard wedges or pins of Oake-wood therein, and that will bring fruitfulnesse: transplant all sorts of Summer-flowers, and give new comfort of meanure and earth to all early outlandish flowers, especially to the *Crown Emperiall, Tulippot, Hyacinth*, and *Narcissus*, of all shapes and colours, cut downe underwood for fuell and fencing, and looke well to your Ewes, for then is the principall time of yeaning: And lastly, bathe often, and bleed but upon extremity, purge not without good counsell, and let your diet be coole and temperate. March.

In the moneth of *April* finish up all your Barley-seed, and begin to sow your Hempe and Flaxe: sow your Garden-seeds, and plant all sorts of herbs; finish grafting in the stocke, but begin your principall inauguration, for then the rind is most pliant and gentle: open your Hives, and give Bees free liberty, leave to succour them with food, and let them labour for their living. April.

Now cut downe all great Oake-timber, for now the barke will rise, and be in season for the Tanner. Now scowre your ditches, and gather such meanure as you make in the streets and high-waies, into great heapes together; lay your meadowes, sleight your corne-grounds, gather away stones, repaire your high-waies, set Oziers and Willowes, and cast up the bankes and munds of all decayed fences.

Lastly, for your health, either purge, bathe or bleed, as you shall have occasion, and use all wholesome recreation, for then moderate exercise in this moneth, there is no better Physick.

May. In the moneth of *May* sow Barley upon all light sands and burning grounds, so likewise do your Hemp and Flaxe, and also all sorts of tender Garden-seeds, as are Cucumbers and Mellons, and all kind of sweet smelling herbs and flowers; Fallow your stiffe claies; Summer-stirre your mix'd earth, and soile all light and loose hot sands: prepare all barren earth for Wheat and Rye, Burne baite, Stub gorsse or Furres, and roote out Broome and Ferne: begin to fold your sheepe, leade forth meanure, and bring home fuell and fencing, weed your Winter-corne, follow your common workes, and put all sorts of Cattell to grasse, either in pasture or teather: put your Mares to the Horse, let nothing be wanting to furnish the Dairy: and now put off all your Winter-fed fat Cattell, for now they are scarcest and deerest, put young Steares and drie Kine now to feed at fresh grasse, and away with all Pease-fed sheepe, for the sweetnesse of grasse mutton will pull downe their prices.

Lastly, for your health, use drink that will coole and purge the blood, and all other such physicall precepts, as true Art shall prescribe you. But beware of Mountebanks

tebanks and old wives tales, the latter hath no ground, and the other no truth, but apparent cozenage.

In the Moneth of *June*, carry ſand, marle, lime, and meanure of what kind ſoever to your land; bring home your coales and other neceſſary fuell fetch'd farre off, ſheare early fat ſheepe, ſow all ſorts of tender herbs, cut ranke low medowes, make the firſt returne of your fat cattell, gather early Summer fruits, diſtill all ſorts of Plants and Herbs whatſoever. June.

And laſtly, for your health, uſe much exerciſe, thin diet, and chaſte thoughts.

In the Moneth of *July*, apply your hay-harveſt, for a day ſlack'd is many pounds loſt, chiefly when the weather is unconſtant, ſheare all manner of fild-ſheepe, Summer-ſtirre rich ſtiffe grounds, foile all mixt earths, and latter foile all looſe hot ſands, let herbs you would preſerve, now turne to ſeed, cut off the ſtalkes of outlandiſh flowers, and cover the roots with new earth, ſo well mix'd with meanure as may be, ſell all ſuch Lambs as you feed for the Butcher, and ſtill lead forth ſand, marle, lime, and other meanure; fence up your Copſes, graze your elder under-woods, and bring home all your field-Timber. July.

And laſtly, for your health, abſtaine from all Phyſicke, bleed not, but upon violent occaſion, and neither meddle with Wine, Women, nor other wantonneſſe.

In the Moneth of *Auguſt*, apply your Corne-harveſt, ſheare downe your Wheat and Rye, mowe your Barley and Oats, and make the ſecond returne of your fat ſheepe and cattell; gather all your Summer greater fruit, plums, apples, and peares, make your Summer or ſweet Perry and Cider; ſet ſlips and Syens of all ſorts of Gilly-flowers, and other flowers, and tranſplant Auguſt.

them that were ſet the Spring before: and at the end of this Moneth, begin to Winter-rig all fruitfull ſoiles whatſoever; geld your Lambs, carry meanure from your Dove-coats, and put your Swine to the early or firſt maſt. And laſtly, for your health, ſhun feaſts and banquets, let Phyſicke alone, hate Wine, and only take delight in drinks that are coole and temperate.

September. In the Moneth of *September*, reape your Peaſe, Beanes, and all other Pulſe, making a finall end of your harveſt; now beſtow upon your Wheate-land your principall manure, and now ſow your Wheat and Rye, both in rich, and in barren climates; now put your Swine to maſt of all hands, gather your Winter-fruit, and make ſale of your wooll, and other Summer-commodities; now put off thoſe ſtockes of Bees, you meane to ſell or take for your owne uſe, cloſe thatch, and dawb'd warme, all the ſurviving hives, and looke that no Drones, Mice, or other Vermine be in or about them, now thatch your ſtackes and reekes, thraſh your ſeede-Rye and Wheate, and make an end with your Cart of all forraine journies.

Laſtly, for your health in this Moneth, uſe Phyſicke, but moderately, forbeare fruits that are too pleaſant or rotten, and as death ſhun ryot and ſurfeit.

October. In the Moneth of *October*, finiſh up your Wheat-ſeede, ſcoure ditches and Ponds, plaſh and lay hedges and quick-ſet, tranſplant, remove, or ſet all manner of fruit-trees, of what nature or quality ſoever; make your Winter-Cider and perry, ſpare your private paſtures, and eate up the corne-fields and commons, and now make an end of Winter-ridging, draw furrowes to draine and keepe dry your new ſowne Corne, follow hard the making of your Malt, reare all ſuch

Calves

Calves as shall fall, and weane those Foales from your draught-mares, which the Spring before were foaled; now sell all such sheepe as you will not winter, give over folding, and separate Lambes from the Ewes which you purpose to keepe for your owne stocke.

Lastly, for your health, refuse not any needfull Physicke at the hands of the learned Physitian, use all moderate sports, for any thing now is good which reviveth the spirits.

In the moneth of *November*, you may sow either Wheate or Rye in exceeding hot soiles, you may then remove all sorts of Fruit-trees, and plant great trees, either for shelter or shadow; now cut downe all sorts of timber, for Ploughes, Carts, Axeltrees, Naves, Harrowes, and other husbandly offices; make now the last returne of your grasse-fed Cattell; bring your Swine from the mast, and feed them for slaughter, reare what Calves soever fall, and breake up all such Hempe and Flaxe as you intend to spin in the Winter-season. November.

Lastly for your health, eate good wholesome and strong meats very well spiced and dreſt, free from rawnesse, drinke sweete Wines, and for disgestion ever before Cheese preferre good and moderate exercise.

In the moneth of *December*, put your sheepe and Swine to the Pease Reekes, and fat them for the slaughter and market; now kill your small Porkes and large Bacons, lop hedges and trees, saw out your timber for building, and lay it to season, and if your land be exceeding stiffe, and rise up in an extraordinary furrow, then in this moneth begin to plow up that ground whereon you meane to sow cleane Beanes December.

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onely, now cover your dainty fruit-trees all over with Canvase, and hide all your best flowers from frosts and stormes with rotten old Horse-litter; now draine all your corn-fields, and as occasion shall serve, so water and keepe moist your medowes; now become the Fowler with Peece, Nets, and all manner of Engin, for in this Moneth no Fowle is out of season: Now fish for the Carpe, the Breame, Pyke, Tench, Barbell, Peale and Salmon. And lastly, for your health, eate meate that are hot and nourishing; drinke good wine that is neate, sprighty and lusty, keep thy body well clad, and thy house warme, forsake whatsoever is phlegmatick, and banish all care from thy heart, for nothing is now more unwholesome then a troubled spirit.

Many other observations belong unto the office of our skilfull Plough-man or Farmer; but since they may be imagined too curious, too needlesse, or too tedious, I will stay my Pen with these already rehearsed, and thinke to have written sufficiently, touching the application of grounds and office of the Plough-man.

The end of Markham's *farewell to Husbandry.*

FINIS.

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Orchard and Garden,

Or

The best way for planting, grafting, and to make *any ground good, for a rich Orchard: Particularly in the North,* and generally for the whole kingdome of England, as in nature, *reason, situation, and all probability, may and doth appeare.*

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As also the Husbandry of Bees, with their severall uses and annoyances, all being the experience of 48. yeares labour, and now the third time corrected and much enlarged, by *William Lawson.*

Whereunto is newly added the Art of propagating Plants, with the true ordering of all manner of Fruits, in their gathering, carrying home, and preservation.

London, Printed by *Edward Griffin* for *John Harison*, at the golden Vnicorne in Pater noster-row. 1638.

A NEW
Orchard and Garden,
OR
The best way for planting, grafting, and to make any Orchard or Garden: Particularly in the North, together with the Nature of the Fruits of this Kingdom of England, as in nature, quality, virtues, and ordering, may most daily appear.

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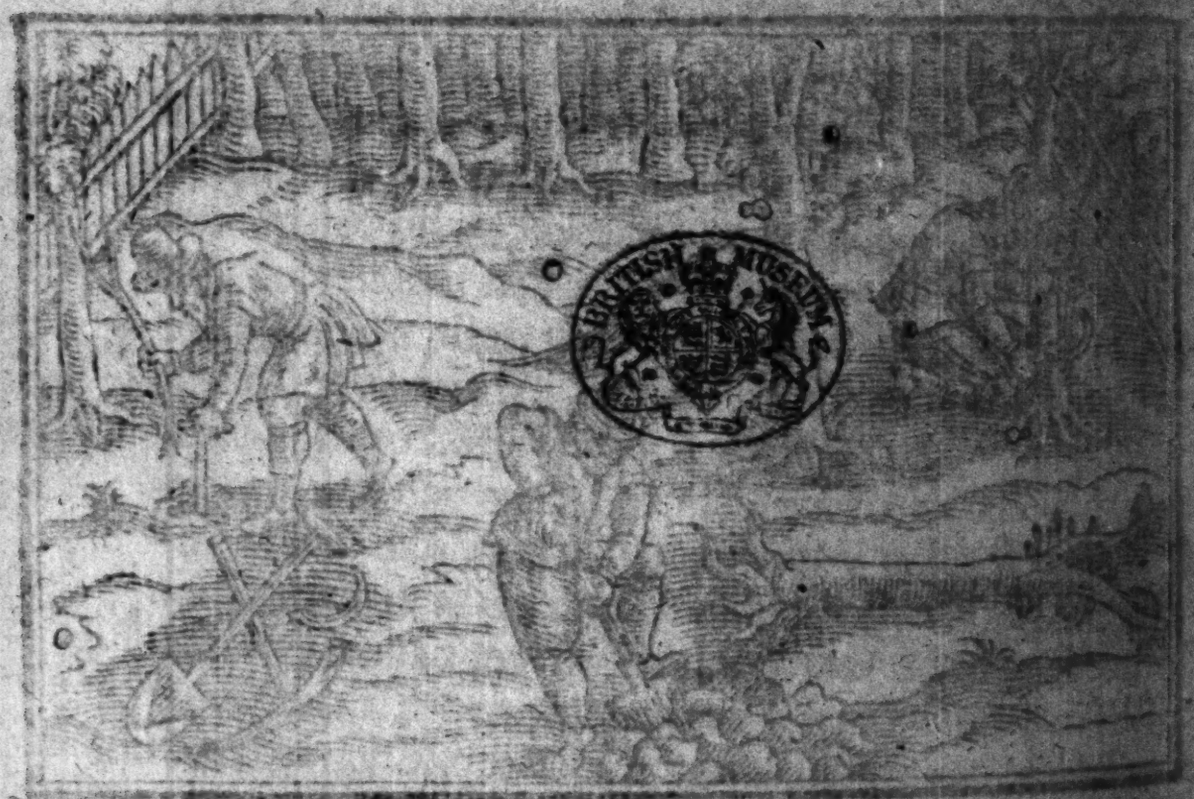
Also lately added the Art of propagating Plants, with the true manner of raising them by seeds and propagation.


BRITISH MUSEUM

London, Printed for Nath. Brook, at the Angel in Cornhill. 1658.

TO THE RIGHT WORSHIPFVLL

Sir *Henry Belosses*

Knight and Baronet.

Worthy Sir,

WHen in many yeares by long experience I had furnished this my Northerne Orchard and Country Garden with needfull plants and usefull herbes, I did impart the view thereof to my friends, who resorted to me to conferre in matters of that nature, they did see it, and seeing it desired, and I must not now denie the publishing of it (which then I allotted to my private delight) for the publike profit of others. Wherefore, though I could plead custome the ordinary excuse of all Writers, to chuse a Patron and Protector of their Workes, and so shroud my selfe from scandall under your honourable favour, yet have I certaine reasons to excuse this my presumption: First, the many curtesies you have vouchsafed me. Secondly, your delightfull skill in matters of this nature. Thirdly, the pro-

fit,

fit which I received from your learned diſcourſe of fruit-trees.

Fourthly, your animating and aſſiſting of others to ſuch endeavours. Laſt of all, the rare work of your owne in this kind, all which to publiſh under your protection, I have adventured (as you ſee) Vouchſafe it therefore entertainement, I pray you, and I hope you ſhall finde it not the unprofitableſt ſervant of your retinue; for when your ſerious imployments are overpaſſed, it may interpoſe ſome commodity, and raiſe your contentment out of variety.

Your worſhips moſt bounden,

William Lawſon.

The Preface to all well minded.

ART hath her first originall out of experience, which therefore is called the Schoole-mistresse of fooles, because she teacheth infallibly, and plainely, as drawing her knowledge out of the course of Nature, (which never failes in the generall) by the senses, feelingly apprehending, and comparing (with the helpe of the minde) the workes of nature; and as in all other things naturall, so especially in Trees: for what is Art more then a provident and skillfull Collectrix of the faults of Nature in particular workes, apprehended by the senses? As when good ground naturally brings forth thistles, trees stand too thicke, or too thin, or disorderly, or (without dressing) put forth unprofitable suckers, and such like. All which and a thousand more, Art reformeth, being taught by experience: and therefore must wee count that Art the surest, that stands upon experiment all rules, gathered by the rule of reason (not conceit) of all other rules the surest.

Whereupon have I of my meere & sole experience, without respect to any former written treatise gathered these rules, & set them downe in writing, not daring to hide the least talent given me of my Lord and Master in Heaven: neither is this injurious to any, though I differ from the common opinion in-

in divers points, to make it knowne to others, what good I I have found out in this faculty by long triall and experience. I confesse freely my want of curious skill in the Art of planting. And I admire and praise Plinie, Aristotle, Virgil, Cicero, *and many others for wit and judgment in this kind, and leave them to their times, manner, and severall Countries.*

I am not determined (neither can I worthily) to set forth the praises of this Art: how some, and not a few, even of the best, have accounted it a chiefe part of earthly happinesse, to have faire and pleasant Orchards, as in Hesperia *and* Thessaly, *how all with one consent agree, that it is a chiefe part of husbandry (as* Tully de senectute) *and Husbandry maintaines the world; how ancient, how, profitable, how pleasant it is, how many secrets of nature it doth containe, how loved, how much practised in the best places, and of the best: This hath already beene done by many. I only aime at the common good. I delight not in curious conceits, as planting and grafting with the roote upwards, inoculating Roses on Thornes, and such like, although I have heard of divers, proved some, and read of more.*

The Stationer hath (as being most desirous with me, to further the common good) bestowed much cost and care in having the knots and models by the best Artizan cut in great variety, that nothing might bee any way wanting to satisfie the curious desire of those that would make use of this Booke.

And I shew a plaine and sure way of planting, which I have found good by 48. yeeres (and moe) experience in the North part of England: *I prejudicate and envie none, wishing yet all to abstaine from maligning that good (to them unknown) which is well intended. Farewell.*

Thine, for thy good, *W. L.*

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THE BEST, SVRE AND READIEST WAY

to make a good *Orchard* and *Garden*.

CHAPTER. I.

Of the Gardner, and his wages.

WHosoever desireth and endeavoreth to have a pleasant, and profitable Orchard, must (if he be able) provide himselfe of a Gardener, religious, honest, skilful in that faculty, & therwithall painefull: By religious, I meane (because many think religion but a fashion or custome to go to *Church*) maintaining, & cherishing things religious: as Schools of learning, *Churches*, Tythes, Church-goods, & rights; and above all things, Gods word, & the Preachers therof, so much as he is able, practising prayers, comfortable conference, mutuall instruction to edifie, almes, and other workes of Charity, & all out of a good conscience. Religious.

Honesty in a Gardner, wil grace your Garden, and all your house, and helpe to stay unbridled Servingmen, giving offence to none, not calling your name into question by dishoneft acts, nor infecting your family by evill counsell or example. For there is no plague so infectious as Popery and knavery, he will not purloine your profit, nor hinder your pleasures. Honesty.

Concerning his skill, he must not be a Scolist, to make shew or take in hand that, which he cannot performe, especially in so weighty a thing as an Orchard; Skilfull.

than the which, there can be no humane thing more excellent, either for pleasure or profit, as shall (God willing) be proved in the treatise following. And what an hinderance shall it be, not onely to the owner, but to the common good, that the unspeakeble benefit of many hundred yeeres shall be lost, by the audacious attempt of an unskilfull Arborist.

Painefull. The Gardner had not need be an idle, or lazie Lubber, for so your Orchard being a matter of such moment, will not prosper. There will ever be something to doe. Weeds are alwaies growing. The great mother of all living Creatures, the Earth, is full of seed in her bowels, and any stirring gives them heat of Sun, and being laid neere day, they grow: Mowles worke daily, though not alwaies a like. Winter herbes at all times will grow (except in extreame frost.) In Winter your young trees and hearbs would be lightned of snow, and your Allyes cleansed: drifts of snow will let Deere, Hares, and Conyes, and other noysome beasts over your walls & hedges, into your Orchard. When Summer cloathes your borders with greene and peckled colours, your Gardner must dresse his hedges, and other workes: watch his Bees, and hive them: gather his Rosses and other herbes. Now begins Summer Fruit to ripe, and crave your hand to pull them. If he have a Garden (as he must need) to keepe, you must needs allow him good helpe, to end his labours which are endles, for no one man is sufficient for these things.

Wages. Such a Gardner as will conscionably, quickly and patiently travell in your Orchard, God shall crowne the labours of his hands with joyfulnesse, and make the clouds drop fatnesse upon your trees, he will procure your love, and earne his wages,

his place: The house being served, fallen fruite, superfluity of herbs, and flowers, seedes, graffes, sets, and besides other offall, that fruit which your bountiful hand shall reward him withall, will much augment his wages, and the profit of your bees will pay you backe againe.

If you be not able, nor willing to hire a gardner, keep your profits to your selfe, but then you must take all the paines: And for that purpose (if you want this faculty) to instruct you, have I undertaken these labours, & gathered these rules, but chiefly respecting my Countries good.

Chap. II.

Of the soile.

FRuit-trees most common, and meetest for our Northerne Countries: (as Apples, Peares, Cherries, Filberds, red and white Plummes, Damsons, and Bulles,) for we meddle not with Apricockes nor Peaches, nor scarcely with Quinces, which will not like in our cold parts, unlesse they be helped with some reflex of Sunne, or other like meanes, nor with bushes, bearing berries, as Barberies, Goose-berries, or Grosers, Raspe-berries, and such like, though the Barbery be wholsome, and the tree may be made great: doe require (as all other trees doe) a blacke, fat, mellow, cleane and well tempered soyle, wherein they may gather plenty of good sap. Some think the Hasell would have a chanily rocke, and the sallow, and ellers waterish marish. The soile is made better by delving, and other meanes, being well melted, and the wildnesse of the earth and weedes (for every thing subject to man, and serving his use (not well ordered, is by nature sub-

Kinds of trees.

Soyle.

ieft to be curse,) killed by reft and drought, by ouerflowing and laying on heapes, and if it be mild earth, with burning.

Barren earth. If your ground bee barren (for some are forced to make an Orchard of barren ground) make a pit three quarters deepe, and two yards wide, and round in such places, where you would set your trees, and fill the same with fat, pure, and mellow earth, one who e foot higher then your soile, and therein set your Plant. For who is able to manure a whole Orchard plot, if it be barren? But if you determine to manure the whole lite, thus is your way: digge a trench halfe a yard deepe, all along the lower (if there be a lower) side of your Orchard plot, casting up all the earth on the inner side, and fill the same with good short, hot, & tender muck & make such another Trench, and fill the same as the first, and so the third, and so throughout your ground. And by this means your plot shal be fertile for your life. But be sure you set your trees neither in dung nor barren earth.

Plaine. Your ground must be plaine, that it may receive and keep moysture, not onely the raine falling thereon, but also water cast upon it, or descending from higher ground by sluices, conduits, &c. For I account moysture in Summer very needfull as the soil of trees, & strong in Winter. Provided that the ground neither be boggy, nor the inundation be past 24. houres at any time, and but twice in the whole Summer, and so oft in the Winter. Therefore if your plot be in a Banke, or have a descent, make Trenches by degrees, Allyes, Walkes and such like, soas the Water may be stayed from passage.

Moyst. And if too much water be any hindrance to your walkes (for dry walkes doe well become an Orchard, and Orchard them:) raise your walkes with earth fit, and

then with stones, as bigge as Walnuts: and lastly, with gravell. In Summer you need not doubt too much water from heaven, either to hurt the health of your body, or of your trees. And if overflowing molest you after one day, avoid it then by deepe trenching.

Some for this purpose dig the soile of their Orchard to receive moisture, which I cannot approve: for the roots with digging are oftentimes hurt, and especially being digged by some unskilfull servant: For the Gardiner cannot doe all himselfe. And moreover, the roots of Apples & Peares, being laid neer day, with the heate of the Sun, will put forth suckers, which are a great hinderance, & sometimes with evill guiding, the destruction of trees, unlesse the delving be very shallow, and the ground laid very levell againe. Cherries and Plummes without delving, will hardly or never (after twenty yeares) be kept from such suckers, nor aspes.

Grasse also is thought needfull for moysture, so you let it not touch the roots of your trees: for it will breed mosse and the boall of your tree neere the earth would have the comfort of the Sun and Ayre. Grasse.

Some take their ground to be too moist when it is not so, by reason of water standing thereon, for except in soure marshes, springs, and continuall overflowings, no earth can be too moyst. Sandy & fat earth will avoid all water falling by receit. Indeed a stiffe clay will not receive the water, and therfore if it be grassie or plaine, especially hollow, the water will abide, and it will seem waterish, when the fault is in the want of manuring, and other good dressing.

This plainnesse which we require, had need be naturall, because to force an uneven ground will destroy the fatnesse. For every soile hath his crust next day wherin

trees and herbes put their roots, and whence they draw their sap, which is the best of the soile, and made fertile with heat and cold, moisture and drought, and under which by reason of the want of the said temperature, by the said foure qualities, no tree nor herbe (in a manner) will or can put root. As may be seene, if in digging your ground, you take the weeds of most growth: as geaffe or docks (which will grow though they lye upon the earth bare) yet bury them under the crust, and they will surely dye & perish, & become meanure to your ground. This crust is not past 15. or 18 inches deepe in good ground, or other grounds lesse. Hereby speares the fault of forced plaines, viz. your crust in the lower parts, is covered with the crust of the higher parts, and both with worse earth: your hights having the crust taken away, are become meerly barren: so that either you must force a new crust, or have an evill soile. And be sure you level, before you plant, lest you be forced to remove, or hurt your plants by digging, and casting among their roots. Your ground must be cleered as much as you may of stones, and gravel, walls, hedges, bushes, & other weeds.

Naturally plaine.

Crust of the earth.

CHAP. III.

Of the site.

THere is no difference, that I find betwixt the necessity of a good soile, and a good site of an Orchard. For a good soile (as is before described) cannot want a good site, & if it do, the fruit cannot be good, and a good site will much mend an evill soile. The best site is in low grounds, (and if you can) neere unto a River. High grounds are not naturally fat.

Low and neere a River.

And if they have any fatneſſe by mans hand, the very deſcent in time doth waſh it away. It is with grounds in this caſe as it is with men in a common wealth. Much will have more: and once poore, ſeldome or never rich. The raine will ſcind, and waſh, and the wind will blow fatneſſe from the heights to the hollowes, where it will abide, and fatten the earth, though it were barren before.

Hence it is, that we have ſeldome any plaine grounds, and low, barren: and as ſeldome any heights naturally fertill. It is unſpeakeable, what fatneſſe is brought to low grounds by inundations of waters. Neither did I ever know any barren ground in a low plaine by a River ſide. The goodneſſe of the ſoile in *Holvle* or *Hollowderues*, in *Yorkeſhire*, is well knowne to all that know the River *Humber*, and the huge bulkes of their Cattell there. By eſtimation of them that have ſeene the low grounds in *Holland*, and *Zealand*, they farre ſurpaſſe the moſt countries in *Europe* for fruit fullneſſe, and only becauſe they lie ſo low. The world cannot compare with *Ægypt*, for fertility ſo farre as *Nilus* doth over-flow his bankes. So that a fitter place cannot be choſen for an Orchard, then a low plaine by a river ſide. For beſides the fatneſſe which the water brings, if any cloudy miſt or raine be ſtirring, it commonly fals downe to, and followes the courſe of the River. And where ſee we greater trees of bulke and bough, then ſtanding on or neere the water ſide? If you aske why the plaines in *Holderne*, and ſuch countries are deſtitute of woods? I anſwer that men & cattell (that have put trees thence, from out of Plains to void corners) are better then trees. Neither are thoſe places without trees. Our old fathers can tell us how woods are decaied, & people in the roomth of trees

Pſal. 1.3.
Eze 17.8.
Eccl. 39.17.

Mr. *Markham.*

multipli'd. I have stood somwhat long in this poynt, because some do condemne a moist soile for fruit-trees.

Winds. Chap. 13.

A low ground is good to avoide the danger of winds, both for shaking downe your unripe fruite. Trees the most (that I know) being loaden with wood, for want of proyning, and growing high, by the unskilfulnesse of the Arborist, must needs be in continuall danger of the South-west, West, and North west winds, especially in *September* and *March*, when the aire is most temperate from extreame heat, and cold, which are deadly enemies to great winds. Wherefore chuse your ground low. Or if you be forced to plant in a higher ground, let high and strong walls, houses, and trees, as wall-nuts, plane trees, Okes, and Ashes, placed in good order, be your fence for winds.

The sucken of your dwelling house, descending into your orchard, if it be cleanely conveyed, is good.

Sunne.

The Sunne, in some sort, is the life of the world. It maketh proud growth, and ripens kindly, and speedily, according to the golden verse: *Aurea frugifera, &c. tellus.* Therefore in the countries, neerer approching the Zodiake, the Sunnes habitation, they have better, and sooner ripe fruit, then we that dwell in these frozen parts.

This provoketh most of our great Arborists, to plant Apricockes, Cherries and Peaches, by a wall, and with tackes, and other meanes to spread them upon, and fasten them to a wall, to have the benefit of the immoderate reflexe of the Sunne; which is commendable, for the having of fair, good & soone ripe fruit. But let them know it is more hurtfull to their trees then the benefit they reap therby: as not suffering a tree to live the tenth part of his age. It helpes Gardners to worke, for first the

Trees against a wall.

wall

wall hinders the roots; because unto a dry and hard wall of earth or stone a tree wil not, nor cannot put any root to profit, but especially it stops the passage of sap, whereby the barke is wounded & the wood & diseases grow, so that the tree becomes short of life. For as in the body of a man, the leaning or lying on some member, wherby the course of blood is stopt, makes that member as it were dead for the time, till the bloud returne to his course, and I think, if that stopping should continue any time, the member would perish for want of bloud (for the life is in the bloud) & so endanger the body: so the sap is the life of the tree, as the bloud is to mans body: neither doth the tree in winter (as is supposed) want his sap, no more then mans body his bloud, which in winter, & time of sleep draws inward. So that the dead time of winter, to a tree, is but a night of rest: for the tree at al times, even in winter is nourish'd with sap, & growth as well as mans body. The chilling cold may wel some little time stay, or hinder the proud course of the sap, but so little & so short a time, that in calm & mild season, even in the depth of winter, if you marke it, you may easily perceive, the sap to put out, and your trees to increase their buds, which were formed in the summer before, & may easily be discerned, for leaves fall not off, til they be thrust off, with the knots or buds, whereupon it doms to passe that trees cannot beare fruit plentifully two years together, and make themselves ready to blossome against the seasonableness of the next Spring.

And if any frost be so extreame, that it stay the sap too much, or too long, then it kils the forward fruit in the bud, and sometimes the tender leaves and twigs, but not the tree. Wherfore, to returne, it is perillous to stop the sap. And where, or when, did you ever see a great tree

packt

packt on a wall? Nay, who did ever know a tree so unkindly splat, come to age? I have heard of some, that out of their imaginary cunning, have planted such trees, on the North side of the wall, to avoyde drought, but the heate of the Sun is as comfortable (which they should have regarded) as the drought is hurtfull. And although water is a soueraigne remedy against drought, yet want of Sun is no way to be helped. Wherefore to conclude this Chapter, let your ground lye so, that it may have the benefit of the South, and West Sun, and so low and close, that it may have moysture, and increase his fatnesse (for trees are the greatest suckers & pillers of earth, and (as much as may be) free from great winds.

CHAP. IIII.

Of the quantity.

IT would be remembered what a benefit riseth, not only to every particular owner of an Orchard, but also to the common welth, by fruit; as shall be shewed in the 16. Chapter (God willing) whereupon must needes follow: the greater the Orchard is (being good and well kept) the better it is, for of good things, being equally good, the biggest is the best. And if it shal appeare, that no ground a man occupieth (no, not the corn field) yeeldeth more gaine to the purse, and house-keeping (not to speake of the unspeakeable pleasure) quantity for quantity, than a good Orchard (besides the cost in planting, and dressing an orchard, is not so much by farre, as the labour and seeding of your corne-fields, nor for durance of time, cõparable, besides the certainty of the one before

Orchard as good as a corn field.

the

the other) I see not how any labour, or cost in this kind, can be idly or wastfully bestowed, or thought too much. And what other thing is a vineyard, in those countries where vines doe thrive, than a large Orchard of trees bearing fruit? Or what difference is there in the iuice of the Grape, and our Cyder & Perry, but the goodnes of the soile & clime where they grow? which maketh the one more ripe, & so more pleasant then the other. What soever can be said for the benefit rising from an orchard, that makes for the largenesse of the Orchards bounds. And (me thinkes) they doe preposterously, that bestow more cost and labours, and more ground in and upon a garden than upon an orchard, whence they reape and may reape both more pleasure & more profit, by infinite degrees. And further, that a Garden never so fresh, and faire, and well kept, cannot continue without both renewing of the earth and the herbs often, in the short and ordinary age of a man: wheras your Orchard well kept shall dure divers hundred yeares, as shall be shewed chap. 14. In a large orchard there is much labour saved, in fencing, and otherwise: for three little orchards, or a few trees, being, in a maner, all out-sides, are so blasted and dangered, and commonly in keeping neglected, and require a great fence; whereas in a great Orchard, trees are a mutual fence one to another, and the keeping is regarded, and lesse fencing serves sixe acres together, than three in severall inclosures.

Compared with a vinyard.

Compared with a garden.

Now what quantity of ground is meetest for an Orchard can no man prescribe, but that must be left to every mans severall iudgement, to be measured according to his ability and will, for other necessaries besides fruit must be had, and some are more delighted with orchards then others.

What quantity of ground.

Let

Want is no hinderance.

Let no man having a fit plot plead poverty in this case, for an orchard once planted will maintaine it selfe, and yeeld infinit profit besides. And I am perswaded, that if men did know the right and best way of planting, dressing, and keeping trees, and felt the profit and pleasure thereof, both they that have no orchards, would have them & they that have orchards, would have them larger, yea fruit-trees in their hedges, as in *Worcestershire*, &c. And I think, that the want of planting, is a great losse to our common wealth, and in particular, to the owners of Lord-ships, which land-lords themselves might easily amend, by granting longer terme, & better assurance to their tenants, who have taken up this Proverbe, *Build and sit*, *Build and sit*: for who will build or Plant for an other mans profit? Or the Parlament might enjoyne every occupier of grounds to plant & maintaine for so many acres of fruitfull ground, so many severall trees or kinds of trees for fruit. Thus much for quantity.

How Land-lords, by their Tenants may make flourishing Orchards in *England*.

Chap. V.
Of the forme.

THe goodnesse of the soile, and site, are necessary to the well being of an orchard imply, but the forme is so farre necessary, as the owner shall thinke meete for that kinde of forme wherewith every particular man is delighted, we leave it to himselfe, *Suum cuique pulchrum*. The forme that men like in general is a square, for although roundnesse be *forma perfectissima*, yet that principle is good where necessity by art doth not force some other forme. If within one large square the Gardiner shall make one round Labyrinth or Maze with some kind of Berries, it will grace your forme, so there be sufficient

The usuall forme is a square.

A All these squares must bee set with trees, the Gardens and other ornaments must stand in spaces betwixt the trees, & in the borders and fences
B. Trees 20. yards a sunder.
C. Garden Knots.
D. Kitchen garden.
E. Bridge.
F. Conduit.
G. Staires.
H. Walkes set with great wood thicke.
I. Walkes set with great wood round about your Orchard.
K. The out fence.
L. The out fence set with stone-fruit.
M. Mount To force earth for a mount, or such like set it round with quicke, and lay boughes of trees strangely intermingle drops inward, with the earth in the middle
N. Still-house.
O. Good standing for Bees, if you have an house.
P. If the river run by your doores, & under your mount, it will be pleasant.

perhaps

sufficient roomth left for walkes, so will forme as
round knots do. For it is to be noted, that the eye must
be pleased with the forme. I haue seen squares rising by
degrees with staies from your house-ward, according to
this forme which I haue, *crosse quod dicunt lineas*,
with an unsteady hand, rough hewn, for in forming the
country gardens, the better sort may use better formes,
and more costly worke. What is needfull more to be
sayd, I referre that all (concerning the forme,) to the
Chapter 17 of the ornaments of an Orchard.

Chap. VI.

Of Fences.

Effects of euill fencing.

ALL your labour past & to come about an
Orchard is lost unlesse you fence well. It
shall grieve you much to see your young
sets rubd loose at the roots, the bark gald,
the boughes and twigs cropt, your fruite
stolne, your trees broken, and your many yeares labours
and hopes destroyed, for want of fences. A chiefe care
must be had in this point. You must therefore plant in
such a soil, where you may provide a convenient, strong
and seemely fence. For you can possesse no goods, that
have so many enemies as an orchard, looke Chapter 13.
Fruits are so delightsome; and desired of so many (nay,
in a manner of all) and yet few will be at cost and take
paines to provide them. Fence well therefore, let your
plot be wholy in your owne power, that you make all
your fence your selfe: for neighbours fencing is none at
all, or very careless. Take heed of a doore or window,
(yea of a wall) of any other mans into your orchard
yea, though it be nayld up, or the wall be high, for

Let the fence be your owne.

perhaps

perhaps they will prove theeves.

All Fences commonly are made of Earth, Stone, Bricke, Wood, or both earth and wood. Dry wall of earth, and dry Ditches, are the worst fences save pales or railes, and doe waste the soonest, unlesse they be well copt with glooe and morter; whereon at *Michill-tide* it will be good to sow Wall-flowers, commonly called Bee-flowers, or winter Gilly-flowers, because they will grow (though among stones) and abide the strongest frost and drought, continually green and flowring even in Winter, and have a pleasant smell, and are timely, (that is, they will flower the first and last of flowers) and are good for Bees. And your earthen wall is good for Bees dry and warme. But these fences are both unseemly, evill to repaire, and onely for need, where stone or wood cannot be had. Whosoever makes such Walles, must not pill the ground in the Orchard, for getting earth, nor make any pits or hollowes, which are both unseemely and unprofitable. Old dry earth mixt with sand is best for these. This kind of wall will soone decay, by reason of the trees which grow neere it, for the roots and boales of great trees, will increase, undermine, and overturne such walles, though they were of stone, as is apparant by Ashes, Rountrees, Burtt-trees, and such like, carried in the chat, or berry, by birds into stone-walles. Kinds of fences, earthen walles.

Fences of dead-wood, as pales, will not last, neither will railes either last or make good fence. Pale and Railes.

Stone walles (where stone may be had) are the best of this sort, both for fencing, lasting, and shrouding of your yong trees. But about this must you bestow much paines and more cost, to have them handsome, high & durable. Stone walls.

But

Quicke wood and Moats.

But of al other (in mine owne opinion) Quickwood and Moats or Ditches of water, where the ground is level, is the best fence. In unequall grounds, which will not keepe water, there a double ditch may be cast, made straight and level on the top, two yards broad for a faire walk, five or sixe foot higher then the faile, with a gutter on either side, two yards wide and foure foot deepe set with out, with three or foure chefe of damas, and within with Cherry, Plum, Damson, Bullis, Filbirds, (for I love these trees better for their fruit, as well for their forme, as privit) for you may make them take any forme. And in every corner (and middle if you will) a mount would be raised, where about the wood may clasp, powdered with woodbinde: which will make with dressing a fair, pleasant, profitable & sure fence. But you must be sure that your quicke shoots either grow wholly, or that there bee a supply before, either with planting new, or plashing the old where need is. And assure your selfe, that neither wood, stone, earth, nor water, can make so strong a fence, as this after seven yeares growth.

Moats.

Moats, Fish-ponds, and (especially at one side a River) within and without your fence will afford you fish, fence, and moysture to your trees, and pleasure also, if they be so great and deepe that you may have Swans, & other water birds, good for devouring of vermine, and best for many good uses.

It shall hardly availe you to make any fence for your Orchard, if you be a niggard of your fruit. For liberality will save it best from noysome neighbours. Liberality I say is the best fence, to Iustice most offensive. Thus when your ground is tempered, squared, and fenced, it is time to provide for planting.

CHAP.

CHAP. 7.

Of Sets.

THere is not one point (in my opinion) about an Orchard more to be regarded, than the choice getting and ſetting of good plants, either for readineſſe of having good fruit, or for continuall laſting. For whoſoever ſhall faile in the choice of good Sets, or in getting, gathering or ſetting his plants, ſhall never have a good or laſting Orchard. And I take want of skill in this faculty, to be a chiefe hinderance to the moſt Orchards, and to many for having of Orchards at all.

Some for readineſſe, uſe ſlips, which ſeldome take root: and if they doe take, they cannot laſt, both becauſe their root having a maine wound, will in ſhort time decay the body of the tree: and beſides that roots being ſo weakly put, are ſoone nipt with drought or froſt. I could never ſee (lightly) any ſlip but of apples only ſet for trees. Slips.

A Bur-knot kindly taken from an Apple-tree, is much better and ſurer. You muſt cut him cloſe at the roots end, an handfull under the knot. (Some uſe in Summer, about *Lammas*, to circumciſe him, and put earth to the knots with hay roaps, and in Winter cut him off and ſet him, but this is curioſity, needleſſe, and danger with removing, and drought,) and cut away all his twigs ſave one, the moſt principall, which in ſetting you muſt leave above the earth, burying his trunk in the cruſt of the earth for his root. It matters not much what part of the bough the twig growes out of. If it grow out of Bur-knots.

and so they looke as the very heare. On this ranke is the remove all, if it kill not presently, but after some short time, is may be discerned by blacknesse or yellownesse in the barke, and a small hungred leafe. Or if your removed plant put forth leaves the next and second summer, and little or few sprales, it is a great signe it will and next yeare die. I have knowne a tree raised to setting, yet grow, and beare blossomes for divers yeeres; and yet for want of strength could never shape his fruit.

Suckers good sets.

Next vnto this, or rather equall with these plants, are suckers growing out of the roots of great trees, which cherries and plums doe seldome or never want: and being taken kindly with their roots, will make very good sets. And you may helpe them much by enlarging their roots with the sowes of the eare, whence you take them. They are of two sorts: Either growing from the very root of the tree; and here you must be carefull, not to hurt your tree when you gather them, by rippling among the roots, and that you take them cleane away: for these are a great and continuall annoyance to the growth of your tree; and they will hardly be cleansed. Secondly, or they doe arise from some raw; and these may be taken without danger, which long and good roots, and will soone become trees of strength.

A running Plant.

There is another way, which I have not thorowly proved, to get not onely plants for grafting, but sets to remaine for trees, which I call a *Running Plant*: the manner of it is this: Take a root or kirnell, and put it into the middle of your plot, and the second yeere in the Spring, geld his tops, if hee have one principall (as commonly by nature they have) and let him put forth onely foure Cyons toward the foure corners of the Orchard, as neere the earth as you can. If he put not foure,

(which is rare) stay his top till hee have put so many. When you have such foure, cut the stocke aslope, as is aforesaid in this chapter, hard above the uppermost sprig, and keep those foure without Cyons cleane & streight, till you have them a yard and a halfe, at least, or two yards long. Then the next spring, in grafting time, lay downe those foure sprayes, towards the foure corners of your Orchard, with their tops in an heape of pure and good earth, and raised as high as the root of your Cyon (for sap will not descend) and a sod to keepe them downe, leaving nine or twelve inches of the top to looke upward. In that hill he will put rootes, and his top new Cyons, which you must spread as before, and so from hill to hill, till hee spread the compasse of your ground, or as farre as you list. If in bending, the Cyons cracke, the matter is small; cleanse the ground, and hee will recover. Every bended bough will put forth branches, and become trees. If this plant be of a Bur-knot, there is no doubt. I have proved it in one branch my selfe: and I know at *Wilton* in *Cleve-land* a Peare-tree of a great bulke and age, blowne close to the earth, hath put at every knot roots into the earth, and from roote to top, a great number of mighty armes or trees, filling a great roomth, like many trees, or a little Orchard. Much better may it be done by Art in a lesse tree. And I could not mislike this kinde, save that the time will be long before it come to perfection.

Many use to by sets already grafted, which is not the best way: for, first all removes are dangerous: Againe, there is danger in the carriage: Thirdly, it is a costly course of planting: Fourthly, every Gardner is not trusty to sell you good fruit: Fifthly, you know not which is best, which is worst, and so may take most care about Sets bought.

or neere the root end, some say such an Apple will have no coare nor kirnell. Or if it please the Planter, he may let his bough be crooked, and leave out his top end, one foote, or somewhat more, wherein will be good graffing, if either you like not, or doubt the fruite of the bough (or commonly your bur-knots are Summer fruit) or if you thinke he will not cover his wound.

Vsuall Sets.

The most usuall kind of sets, is planes with rooting of kirnels of Apples, Peares, and Crabs, or stones of Cherries, plummes, &c. Removed out of a Nurlery, Wood or other Orchard, into, and set in your Orchard in their due places. I grant this kind to be better than either of the former, by much, as more sure and more durable. Herein you must note, that in sets so removed, you get all the roots you can, and without bruising of any; I utterly dislike the opinion of those grosse Gardeners, that following their Bookes would have the maine roctes cut away, for tops cannot grow without rootes. And because none can get all the roots, and removall is an hindrance, you may not leave on all tops, when you set them: For there is a proportion betwixt the top and roote of a tree, even in the number, at least, in the growth. If the roots be many, they will bring you many tops if they be not hindred. And if you use to slow or top your tree too much, or too low, and leave no issue or little for sap, (as is to be seene in your hedges) it will hinder the growth of rootes and boale, because such a kind of stowing is a kind of smothering, or choaking the sap. Great wood, as Oake, Elme, Ash, &c. being continually kept downe, with sheeres, knife, axe, &c. neither boule nor roote will thrive, but as an hedge or bush. If you intend to graffe in your Set, you may cut him closer with a greater wound, and neerer the earth, within

Maine roots cut.

Stow Sets removed.

foote or two, because the graft or grafts will cover his wound. If you like his fruite, and would have him to be a tree of himselfe, be not so bold: this I can tell you, that though you doe cut his top close, and leave nothing but his bulke, because his roots are few, if hee be (but little) bigger than your thumbe (as I wish all plants removed to be) hee will safely recover his wound within seven yeeres; by good guidance that is: If the next time of dressing immediatly above his uppermost sprig, you cut him off sloped cleanly, so that the sprig stand on the backe side, (and if you can Northward, that the wound may have the benefit of Sunne) at the upper end of the wound: and let that sprig onely be the boale. And take this for a generall rule; Every young plant, if hee thrive, will recover any wound above the earth, by good dressing, although it be to the one halfe, and to his very heart. This short cutting at the remove, saves your Plants from wind, and need the lesse, or no staking. I commend not tying, or leaning of trees against holds or staies, for it breedes obstruction of sap and wounds incurable. All removing of trees as great as your arme, or above, is dangerous: though sometime some such will grow, but not continue long: Because they be tainted with deadly wounds, either in the root or top. (And a tree once thorowly tainted, is never good.) And though they get some hold in the earth, with some lesser taw, or rawes, which give some nourishment to the body of the tree: yet the heart being tainted, he will hardly ever thrive; which you may easily discerne by the blackenesse of the boughes at the heart, when you dresse your trees. Also, when he is set with more tops than the root can nourish, the tops decaying, blacken the boughes, and the boughes the armes,

Generall rule.

Tying of trees.

Generall rule.

Signes of diseases, Chap. 3.

your worst trees. Lastly, this way keepes you from pra-
ctice, and so from experience, in so good, so noble,
Scholerlike, and profitable a faculty.

The best sets. The only best way (in my opinion) to have fair and lasting sets, is never to remove: for every remove is an hindrance, if not a dangerous hurt or deadly wound. This is the way. The plot-forme being laid, and the plot appointed where you will plant every set in your Orchard, digge the roomth where your sets shall stand, a yeard compasse, and make the earth mellow and cleane, and mingle it with a few coale-ashes, to avoyd wormes, and immediately after the first change of the Moone, in the latter end of *February*, the earth being a-fresh turned over, put in every such roomth three or foure kirnels of Apples or Peares, of the best, every kirnell in an hole made with your finger, finger deep, a foot distant one from another; and that day moneth following, as many moe, (left some of the former misse) in the same compasse; but not in the same holes. Hence (God willing) shall you have roots enough. If they all, or divers of them come up, you may draw (but not digge) up (nor put downe) at your pleasure, the next *November*. How many soever you take away, to give or bestow elsewhere, be sure to leave two of the proudest. And when in your 2. and 3. yeere you graffe, if you graffe then at all, leave the one of those two ungraffed, left in graffing the other you faile: For I find by triall, that after first or second graffing in the same stocke, being mist (for who hits all) the third misse puts your stocke in deadly danger, for want of issue of sap. Yea, though you hit in graffing, yet may your graffes with winde or otherwise, be broken downe. If your graffes or graffe prosper, you have your desire, in a plant unremoved,

Vnremoved. How.

without taint, and the fruit at your owne choice, and so you may (some little earth being removed) pull, but not digge up the other Plant or Plants in that roomth. If your graffe or stocke, for both perish, you have another in the same place, of better strength to worke upon. Your thriving without doubt will overlay your grafted stocke much. And it is hardly possible to misse in grafting so often, if your Gardiner be worth his name.

Sets ungrafted best of all.

It shall not bee amisse (as I judge it) if your Kernels be of choice fruit, and that you see them come forward proudly in their body, and beare a faire and broad leafe in colour, tending to a greenish yellow (which argues pleasant and great fruit) to try some of them ungrafted: for although it be a long time ere this come to beare fruit, ten or twelve yeares, or more; and at their first bearing, the fruit will not seeme to be like his owne kinde: yet am I assured, upon tryall, before twenty yeares growth, such trees will increase the bignesse and goodnesse of their fruits, and become perfectly to their owne kind. Trees (like other breeding creatures) as they grow in yeares, bignes and strength, so they mend their fruit. Husbands and Housewives find this true by experience, in the rearing of their young store. More then this there is no other like this for soundnes & durable last, if his keeping and dressing be answerable. I grant, the readiest way to come soone to this is grafting: because in a manner, all your graffes are taken of fruit-bearing trees.

Now when you have made choice of your trees to remoove, the ground being ready, the best time is immediately after the fall of the leafe, in, or about the change of the Moone, when the sap is most quiet: for then the sap is in running: for it makes no stay, but in the extremi-

Time of removing.

Generall rule.

ty of drought or cold. At any time in winter, may you transplant trees so you put no iceclod from to the roots of your plant in the setting, and therefore open dry and moist weather is best. To remove the leafe being ready to fall and not fallen, or buds apparantly put forth in a moist warme season, for need, sometime may be done, but the safest is to walke in the plaine middle path.

Some hold opinion, that it is best removing before the fall of the leafe, and I heare it commonly practised in the South by our best arborists, the leafe not fallen: and they give the reason to be, that the descending of the sap will make speedy roots. But marke the reasons following, and I thinke you shall finde no soundnesse, either in that position or practise, at least in the reason.

I say, it is dangerous to remove when the sap is most quiet, for every remove gives a maine checke to the flowing sap, by staying the course thereof in the body of your plant, as may appeare in trees removed any time in summer, they commonly die, nay hardly shall you ever the life of the most young and tender plant of any kinde of wood (scarcely herbs) if you remove them in the pride of sap. For proud sap universally stayed by removal, ever hinders, often taints, and so presently, or in very short time kils. Sap is like blood in mans body, in which is the life. *Cap. 4. pag.* If the blood universally be cold, life is excluded; so is sap tainted by untimely removall. A stay by drought, or cold, is not so dangerous (though dangerous if it be extreame) because shorter withall.

2. The sap never descends, as men suppose, but consolidated & transubstantiated into the substance of the tree, and passeth (alwaies above the earth) upward, not only betwixt the barke and the wood, but also into and in both body & barke, though not so plentifully, as may

appeare

appeare by a tree budding, nay fructifying two or three yeares, after he be circumcised, at the very root, like a river that inlargeth his channell by a continuall descent.

3 I cannot perceive what time they would have the sap to descend. At *Midsummer* in a biting drought it staies, but descends not, for immediately upon new showres it makes second shoots, at (or before rather) *Michaelide*, when it shapens his buds for next yeeres fruit. If at the fall of leaf: I grant about that time is the greatest stand, but no descent of sap, which begins somwhat before the leafe fal, but not long therefore at that time must be the best removing, not by reason of descent, but stay of sap.

4 The sap in this course hath his profitable and apparant effects, as the growth of the tree, covering of wounds, putting of buds, &c. Whereupon it follows, if the sap descend, it must need have some effect to shew it.

5 Lastly, boughs plaine, and laid lower than the root, die for want of sap descending, except where it is forced by the maine streame of the sap, as in top boughs hanging like water in pipes, or except the plaine boughs lying on the ground put roots of his owne, yea under boughs which we commonly call water boughs, can scarcely get sap to live, yea in time die, because the sap doth presse so violently upward, and therefore the faire st shoores and fruits are alwaies in the top.

Obiect. If you say that many so removed thrive, I say that somwhat before the fall of the leafe (but not much) is the stand, for the fall and the stand are not at one instant, before the stand is dangerous. But to remove.

Remove soone.

The sooner in winter you remove your sets, the better, the later the worse: For it is very perilous if a strong drought take your sets before they have made good their rooting. A Plant set at the fall shall gaine (in a man-

manner a whole yeares growth of that which the Spring after,

The manner of setting.

I vse in the setting to be sure, that the earth be mellow dy, (and somewhat moist) that it may runne among the small tangles without straining or bruising, and so fill in earth to his roote; I make the set easily to and fro to make the earth settle the better to his roote: and withall easily with my foote I put in the earth: for the ayre is noysome, and will follow concavities. Some prescribe Oates to bee put in with the earth. I could like it, if I could know any reason thereof. And they vse to set their plants with the same side toward the Sunne, but this conceit is like the other. For first, I would have every tree to stand so free from shade, that not onely the roote (which therefore you must keepe free from grasse) but body, boughes, and branches, and every spray, may have the benefit of Sunne. And what hurt, if that part of the tree, that before was shadowed, be now made partaker of the heat of the Sunne in the morning of Bees, I know it is hurtfull, because it changeth their entrance, passage, and whole worke: But not so in Trees.

Set in the crust.

Set as deepe as you can, so that in any wise you goe not beneath the crust. Looke *Chap.* 2.

Moysture good.

We speake in the second Chapter of moysture in generall: but now especially having put your removed plant into the earth, powre on water (of a puddle were good) by distilling prefently, and so every weeke twice in strong drought, so long as the earth will drinke, and refuse by overflowing. For moisture moistes, and both gives leave to the roots to spread, and makes the earth yeeld sap and nourishment, with plenty & facility. Mares (they say) give most & best milke after warme

If

If your ground be such that it will keepe no moisture at the roote of your plant, such plant shall never like, or but for a time. There is nothing more hurtfull for young trees than piercing drought. I have knowne trees of good stature after they have beene of divers yeeres growth, and thrive well for a good time, perish for want of water, and very many by reason of raints in setting.

It is meet your sets and grafts be fenced, till they be as big as your arme, for feare of annoyances. Many waies may sets receive dammages, after they be set, whether grafted or ungrafted. For although we suppose, that no noysome beast or other thing must have accesse among your trees; yet by casualty, a Dog, Cat, or such like, or your selfe, or negligent friend bearing you company, or a shrewd boy, may tread or fall upon a young and tender plant or graft. To avoid these and many such chances, you must stake them round a pretty distance from the set, neither so neere, nor so thicke, but that it may have the benefit of Sunne, raine, and aire. Your stakes (small or great) would be so surely put, or driven into the earth, that they breake not, if any thing happen to leane upon them, else may the fall be more hurtfull, than the want of the fence. Let not your stakes shelter any weeds about your sets, for want of Sunne is a great hinderance. Let them stand so farre off, that your grafts spreading receive no hurt, either by rubbing on them, or of any other thing passing by. If your stocke be long, and high grafted (which I must discommend (except in need) because there the sap is weake, and they are subject to strong wind, and the lightings of birds) tie easily with a soft list three or foure prickes, under the clay, and let their tops stand above the grafts, to avoid the lighting of Crowes, Pies, &c. upon your grafts. If you sticke

Grafts must be fenced.

some

some sharpe thornes at the rootes of your stalkes, they will make hurtfull things keepe off the better. Some better fences for your grafts I know none. And thus much for sets and setting.

CHAP. 8.

Of the distance of trees.

I Know not to what end you should provide good ground, well fenced, and plant good sets, and when your trees should come to profit, have all your labours lost, for want of due regard, to the distance of placing your trees. I have seen many trees stand so thicke, that one could not thrive for the throng of his neighbours. If you doe marke it, you shall see the tops of trees rub'd off, their sides galled like a galled horse backe, and many trees have more stumps than boughes, and most trees no well thriving boughes, but short, stumpish, and evill thriving boughes: like a Corne field over-seeded, or a towne over-peopled, or a pasture overlaid which the Gardiner must either let grow, or leave the tree very few boughes to beare fruit. Hence shall thrift, galls, wounds, diseases, and short life to the trees: and while they live greene, little, hard, worme-eaten, and evill thriving fruit arise, to the discomfort of the owners.

Hurts of too neere planting.

To prevent which discommodity, one of the best remedies, is, the sufficient and fit distance of trees. Therefore at the setting of your plants, you must have such respect, that the distance of them be such, that every tree be not annoyance, but an help to his fellowes: for trees (as all other things of the same kind) should shroud, and not

not hurt one another. And assure your selfe, that every touch of trees (as well under as above the earth) is hurtfull. Therefore this must be a generall rule in this Art: That no tree in an Orchard well ordered, nor bough, nor C; yon, drop upon, or touch his fellowes. Let no man thinke this impossible, but looke in the eleventh Chapter of dressing of trees. If they touch, the wind will cause a forcible rub. Young twigs are tender, if boughes or armes touch or rub, if they are strong, they make great galls. No kinde of touch therefore in trees can be good.

Generall rule.

All touches hurtfull.

Now it is to be considered what distance amongst sets is requisite, and that must be gathered from the compasse and bounds that each tree by probability will take and fill. And herein I am of a contrary opinion to all them which practise or teach the planting of trees, that ever yet I knew, read, or heard of. For the common space between tree and tree, is ten foot: if twenty foot, it is thought very much. But I suppose twenty yards distance is small enough betwixt tree and tree, or rather too too little. For the distance must needs be as farre as two trees are well able to over-spread, and fill, so they touch not by one yard at least. Now I am assured, and I know one Apple-tree, set of a slip *finger-great*, in the space of 20 yeeres (which I account a very small part of a trees age, as is shewed Chapter 14.) hath spread his boughes eleven or twelve yards compasse, that is, five or six yards on every side. Hence I gather, that in forty or fifty yeeres (which yet is but a small time of his age) a tree in good soile, well liking, by good dressing (for that is much availeable to this purpose) will spread double at the least, *viz.* twelve yards on a side, which being added to twelve allowed to his fellow, make twenty and foure yards, and

The best distance of trees.

so

so farre distant may every tree stand from another. And looke how far a tree spreads his boughes above, so farre doth he put his roots under the earth, or rather further, if there be no stop, nor let by walls, trees, rocks, barren earth, or such like: for an huge bulke, and strong armes, massie boughes, many branches, and infinit twigs require wide spreading roots. The top hath the vast aire to spread his boughes in, high and low, this way and that way: but the roots are kept in the cruft of the earth, they may not goe downward, nor upward out of the earth, which is their element, no more than the Fish out of the water, Camelion out of the aire, nor Salamander out of the fire. Therefore they must needs spread farre under the earth. And I dare well say, if nature would give leave to man by Art to dresse the roots of trees, to take away the rawes and tangles, that lap and fret, and grow superfluously and disorderly, (for every thing *sublunary* is curst for mans sake) the tops above being answerably dressed, we should have trees of wonderfull greatnesse, and infinite durance. And I perswade my selfe that this might be done sometimes in Winter, to trees standing in faire plaines and kindly earth, with small or no danger at all. So that I conclud, that 24. yards are the least space that Art can allot for trees to stand distant one from another.

The part of a tree.

Waste ground in an orchard.

If you aske mee what use shall be made of that waste ground betwixt tree and tree? I answer: If you please to plant some tree or trees in that middle space, you may, and as your trees grow contiguous, great and thick, you may at your pleasure take up those last trees. And this I take to be the chiefe cause, why the most trees stand so thicke. For men not knowing (or not regarding) this secret of needfull distance, and loving fruit of trees planted to their hands, thinke much to pull up any,

though

though they pine one another. If you or your heires or succeſſours would take up ſome great trees (paſt ſetting) where they ſtand too thicke, be ſure you doe it about *Mid ſummer*, and leave no maine roots. I deſtinate this place of foure and twenty yards, for trees of age and ſtature. More than this, you have borders to be made for walkes, with Roſes, Berries, &c.

And chiefely conſider; that your Orchard, for the firſt twenty or thirty yeeres, will ſerve you for many Gardens, for Safron, Licoras roots, and other herbs for profit, and flowers for pleaſure; ſo that no ground need be waſted, if the Gardener be skilfull and diligent. But be ſure you come not neere with ſuch deepe delving, the roots of your trees, whoſe compaſſe you may partly diſcerne, by the compaſſe of the tops, if your top be well ſpread. And under the droppings and ſhadow of your trees, be ſure no herbs will like. Let this be ſaid for the diſtance of Trees.

CHAP. III.

Of the placing of Trees.

THe placing of trees in an Orchard is well worth the regard: For although it muſt be granted, that any of our foreſaid trees (Chapter 2.) will like well in any part of your Orchard, being good and well dreſt with earth; yet are not all Trees alike worthy of a good plot. And therefore I wiſh that your Filbird, Plummes, Damſins, Bullace, and ſuch like, be utterly removed from the plaine ſoile of your Orchard, into your fence: for there is no ſuch fertiltie and eaſefull growth,

as

as within: and there also they are more subject, and can abide the blasts of Eolus. The cherries and plummes being ripe in the hot time of Summer, and the rest standing longer, are not so soone shaken as your better fruit: neither if they suffer losse, is your losse so great. Besides that, your fences and ditches will devoure some of your fruit growing in or neere your hedges. And seeing the continuance of all these (except Nuts) is small, the care of them ought to be the lesse. And make no doubt, but the fences of a large Orchard, will containe a sufficient number of such kind of Fruit-trees in the whole compasse. It is not materiall, but at your pleasure, in the said fences, you may either intermingle your severall kindes of fruit-trees, or set every kinde by himselfe, when order doth very well become your better and greater fruit. Let therefore your Apples, Peares, and Quinches possesse the soile of your Orchard, unlesse you be especially affected to some of your other kindes: and of them let your greatest trees of growth stand furthest from Sun, and your Quinches at the South side or end, and your Apples in the middle, so shall none be any hinderance to his fellowes. The Warden-tree, and Winter-Peare will challenge the preheminence for stature. Of your Apple-trees, you shall finde difference in growth. A good Pipping will grow large, and a Costard [illegible] them on the North side of your other Apples, [illegible] ing placed, the least will give Sunne to the rest, the greatest will shroud their fellowes. The fences and outtrees will guard all.

CHAP. 3. *of Grafting.*

NOw are we come to the most curious point of our faculty: curious in conceit, but indeed as plaine and easie as the rest, when it is plainely shewne, which we commonly call *Graffing*, or (after some) *Grafting*. I cannot *Etymologize*, nor shew the originall of the Word, except it come of *Graving* and *Carving*.

Of Graving or Carving.

Graffing what.

But the thing or matter is: The reforming of the fruite of one tree with the fruit of another, by an artificiall transplacing or transposing of a twigge, bud or leafe, commonly called a *Graft*) taken from one tree of the same, or some other kinde, and placed or put to, or into another tree in one time and manner.

A Graffe.

Kinds of grafting.

Of this there be divers kinds, but three or foure now especially in use: to wit, Grafting, inciſing, packing on, grafting in the ſcutchion, or inoculating: whereof the chiefe and moſt uſuall, is called grafting (by the generall name, *Cato exorchen*:) for it is the moſt knowne, fareſt, readieſt, and plaineſt way to have ſtore of good fruit.

Graft how.

It is thus wrought; You muſt with a fine, thin, ſtrong and ſharpe Saw, made and armed for that purpoſe, cut off a foot above the ground, or thereabouts, in a plaine without a knot, or as neare as you can without a knot (for ſome ſtocks will bee knotty;) your Stocke, ſet, or plant, being ſurely ſtayed with your foot and legge, or otherwiſe ſtraight overthwart (for the Stocke may bee crooked) and then plaine his wound ſmoothly with a ſharpe knife: that done, cleave him cleanly in the middle with a cleaver, and a knocke or mall, and with a wedge of wood, Iron or Bone, two handfull long at leaſt, put into the middle of that cliſt, with the ſame knocke, make the wound gape a ſtraw breath wide, into which you muſt put your Graffes.

A Graft what.

The graft is a top twig taken from ſome other Tree (for it is a folly to put a graffe into his owne Stocke) beneath the uppermoſt (and ſometime in need the ſecond) knot, and with a ſharpe knife fixed in the knot (at ſome time out of the knot when need is) with ſhoulder an inch downeward, and ſo put into the ſtocke with ſome thruſting (but not ſtraining) bark to bark ward.

Eyes.

Let your graffe haue three or foure eyes for readineſſe to put forth, and glue iſſue to the ſap. It is beſt to cut off the top of your graffe, and leaue it but five or ſixe inches long, becauſe commonly

see the tops of long graffes die. The reason is this. The sap in graffing receives a rebuke, and cannot worke so strongly presently, and your graffes receive not sap so readily, as the naturall branches. When your graffes are cleanely and closely put in, and your wedge pulled out nimbly; for feare of putting your graffes out of frame, take well tempered morter, soundly wrought with chaffe or horse dung (for the dung of cattell will grow hard, and straine your graffes) the quantity of a Gooses egge, and divide it iust, and therewithall, cover your stocke, laying the one halfe on the one side, and the other halfe on the other side of your graffes (for thrusting against your graffes) you move them, and let both your hands thrust at once, and alike, and let your clay be tender, to yeeld easily; and all, least you move your graffes. Some use to cover the cleft of the stocke, under the clay with a piece of barke or leafe, some with a lear-cloth of waxe and butter, which as they be not much needful, so they hurt not, unlesse that by being busie about them, you move your graffes from their places. They use also mosse tyed on above the clay with some bryar, wicker, or other bands. These profit nothing. They all put the graffes in danger, with pulling and thrusting: for I hold this generall rule in graffing and planting: if your stocke and graffes take, and thrive (for some will take and not thrive, being tainted by some meanes in the planting or graffing) they will (without doubt) recover their wounds safely and shortly.

Generall rule.

The best time of graffing from the time of removing your stocke is the next Spring, for that saves a second wound, and a second repulse of sap, if your stocke be of sufficient bignesse to take a graffe from as bigge as your

Time of graffing.

thumbe, to as big as an arme of a man. You may grafe leſſe (which I like) and biger, which I like not ſo well. The beſt time of the yeare is in the laſt part of *Febru-ry*, or in *March*, or beginning of *Aprill*, when the Sunne with his heat begins to make the ſap ſtirre more rankly, about the change of the moon before you ſee any great apparancy of leafe or flowers but onely knots and buds, and before they be proud, though it be ſoner. Cheries Peares, Apricoks, Quinces, and plummes would be gathered and grafted ſooner.

Gathering of graffes.

The graffes may be gathered ſooner in *February*, or any time within a month, or two before yoz graffe, or vpon the ſame day (which I commend) if you get them any time before, for I have knowne graffes gathered in *December* and doe well, take heed of drought. I have my ſelfe taken a burknot of a tree, & the ſame day when he was laid in the earth about mid *February*, gathered grafts and put in him, and one of thoſe graffes bore the third yeare after, and the fourth plentifully. Graffes of old trees would be gathered ſooner then of young trees for they ſooner breake and bud. If you keepe grafes in the earth, moiſture with the heat of the Sun will make them ſprout as faſt, as if they were growing on the tree. And therefore ſeeing keeping is dangerous, the beſt way (as I iudge) is to take them within a weeke of the time of your grafting.

Graffes of old trees.

The grafts would be taken not of the prondeſt twig, for it may be your ſtocke is not anſwerable in ſtrength. And therefore (ſay I) the grafts brought from Southren us in the north although they take and thriue (which is ſomewhat doubtfull, by reaſon of the difference of the clime and carriage) yet ſhall they in time faſhion themſelves to our cold Northerne ſoile, in growth, taſte &c.

Where taken.

Not

Nor of the poorest, for want of strength may make them unready to receive sap (and who can tell but a poore graft is tainted) nor on the outside of your tree, for there should your tree spread but in the middest: for there you may bee sure your Tree is no whit hindered in his growth or forme. He will still recover inward, more then you would wish. If your clay clift in Summer with drought, look well in the Chinkes for Emmets and Earewigs, for they are cunning and close theeves, about grafts you shall finde them stirring in the morning and evening, and the rather in the moist weather. I have had many young buds of Graffes, even in the flourishing, eaten with Ants. Let this suffice for grafting, which is in the faculty counted the chiefe secret, and because it is most usuall it is best knowne.

Emmets.

A great flocke.

Graffes are not to bee disliked for growth, till they wither, pine, and die. Usually before you know they breake, if they live. Some (but few) keeping proud and greene, will not put till the second yeere, so is it to bee thought of fets.

The first shew of putting is no sure signe of growth, it is but the sap the graffe brought with him from his tree.

So soone as you see the graft put for growth, take away the clay, for then doth neither the stocke nor the graffe need it (put a little fresh well-tempered clay in the hole of the stocke) for the clay is now tender, and rather keepes moisture then drought.

Taking clay.

The other wayes of changing the naturall fruit of Trees, are more curious then profitable, and therefore I mind not to bestow much labour or time about them, onely I shall make known what I have proved, and what I doe thinke.

And first of incising, which is the cutting of the backe

Incising

of the boale, a rine or branch of a tree at some bending or knee, shoulderwise with two gashes, onely with a sharpe knife to the wood: then take a wedge, the bigness of your graffe sharpe ended, flat on the one side, agreeing with the tree, and round on the other side, and with that being thrust in, raise your barke, then put in your graffe fashioned like your wedge iust: and lastly cover your wound, and fast it up, and take heed of straining. This will grow but to small purpose, for it is weake hold, and highly it will be under growth. Thus you may graffe twixt the barke and the tree of a great stocke that will not easily be clifted: But I have tryed a better way to great trees. First cut him off straight, and cleanse him with your knife, then cleave him into foure quarters, equally with a strong cleaver: then take for every clift two or three small (but hard) wedges iust of the bigness of your grafts, and with those Wedges driven in with a hammer open the found clifts farre inough (but not wider) that they may take your 4 graffes, with thrusting, not with straining: and lastly cover and clay it closely, and this is sure and good way of grafting: or thus, clift your stock by his edges twixt or thrice with your cleaver, and open him with your wedge in every clift one by one, and put in your grafts, and then cover them. This may do well.

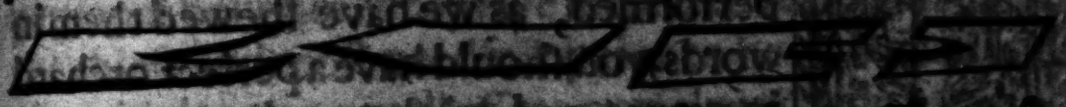
A great stocke.

Packing thus.

Packing you is when you cut slope wise of the same bigness with your graffe, binder in or before the knot, two inches long, and make your graffe agree shape with the Cyon, and gash your graft and your Cyon in the middest of the wound, length wise a straw breadth deepe, and thrust the one into the other, slap to slap, barke to barke, that the wound may be close and clay them: This may do well. The finest graft I have

haue in my little Orchard, which I haue planted, is thus packt on, and the branch whereon I put him, is in his plentifull roote.

To bee short in this poynt, cut your graft in any sort or fashion, two inches long, and ioyne him cleanely and close to any other sprig of any tree in the latter end of the time of grafting, when sap is somewhat rife, and in all probability they will close and thrive: thus



The sprig. *The graft.* *The twig.* *The graft.*

Or any other fashion you thinke good.

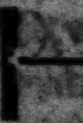
Necessity of grafting trees.

Inoculating is an eye or bud, taken barke and all from one tree, and placed in the roome of another eye or bud of another, cut both of one compasse, and there bound. This must be done in Summer, when the sap is proud.

Inoculating.

Much like unto this is that, they call grafting in the scutcheon, they differ thus. That here you must take an eie with his leafe, or (in mine opinion) a bud with his leaves. (Note that an eye is for a Cyon, a bud is for flowers and fruit,) and place them on another tree, in a plaine (for so they teach) the place or barke where you must set it, must be thus cut with a sharpe knife, and the barke raised with a wedge, and then the eie or budde put in and so bound up. I cannot deny but such may grow. And your bud if hee take will flowre and beare fruit that yeere: as some grafts & sets also, being set for bloomes. If these two kindes thrive, they reforme but a spray, and an undergrowth. Thus you may place Roses on Thornes, and Cherries on Apples, and such like. Many write much more of grafting, but to small purpose. Whom we leave to themselves, and their followers, and ending this secret wee come in the

Grafting in the Scutchion.



of the boale, a rine or branch of a tree at some bending or knee, shoulderwise with two gashes, onely with a sharpe knife to the wood: then take a wedge, the bigneſſe of your graffe sharpe ended, flat on the one side, agreeing with the tree, and round on the other side, and with that being thrust in, raise your barke, then put in your graffe fashioned like your wedge iust: and lastly cover your wound, and fast it up, and take heed of straining. This will grow but to small purpose, for it is weake hold, and highly it will be under growth. Thus you may graft betwixt the barke and the tree of a great stocke that will not easily be clifted: But I have tryed a better way for great trees. viz. First, cut him off straight, and cleanse him with your knife, then cleave him into foure quarters, equally with a strong cleaver: then take for every clift two or three small (but hard) wedges iust of the bigneſſe of your graffe, and with those Wedges driven in with a hammer open the foure clifts so wide (but not wider) that they may take your 4 graffes, with thrusting, not with straining: and lastly cover and clay it closely, and this is sure and good way of grafting: or thus, clift your stock by his edges twice or thrice with your cleaver, and open him with your wedge in every clift one by one, and put in your grafts, and then cover them. This may doe well.

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haue in my little Orchard, which I haue planted, is thus packt on, and the branch whereon I put him, is in his plentifull roote.

To bee short in this point, cut your graft in any sort or fashion, two inches long, and ioyne him cleanely and close to any other sprig of any tree in the latter end of the time of grafting, when sap is somewhat rife, and in all probability they will close and thrive: thus

The sprig. The groft. The twig. The graft.

Or any other fashion you thinke good.

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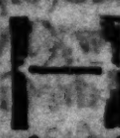


next Chapter to a point of knowledge most requisite in an Arborist, as well for all other woods as for an orchard.

Chap. XL.

Of the right dressing of Trees.

Necessity of dressing trees.

IF all these things aforesaid were indeed performed, as we have shewed them in words, you should have a perfect orchard in nature and substance, begun to your hand: And yet are all these things nothing, if you want that skill to keep and dresse your trees. Such is the condition of all earthly things, wherby a man receiveth profit or pleasure, that they degenerate presently without good ordering. Man himselfe left to himselfe growes from his heavenly and spirituall generation and becommeth beastly, yea devillish to his owne kind, unlesse he be regenerate. No marvell then, if Trees make their shootes, and put their spraies disorderly. And truly (if I were worthy to judge) there is not a mischiefe that breedeth greater and more generall harme to all the Orchard (especially if they be of any continuance) that ever I saw, (I will not except three) then the want of the skilfull dressing of trees. It is a common and unskilfull opinion, and saying, Let all grow, and they will beare more fruit: and if you lop away superfluous boughes, they say, what a pitty is this? How many apples would these have borne? not considering their may arise hurt to your Orchard, aswell (nay rather) by abundance, as by want of wood, sound and thriving plant in a good soyle, will ever yeeld too much wood, and disorderly, but never too little. So that a skilfull and painfull Arborist need

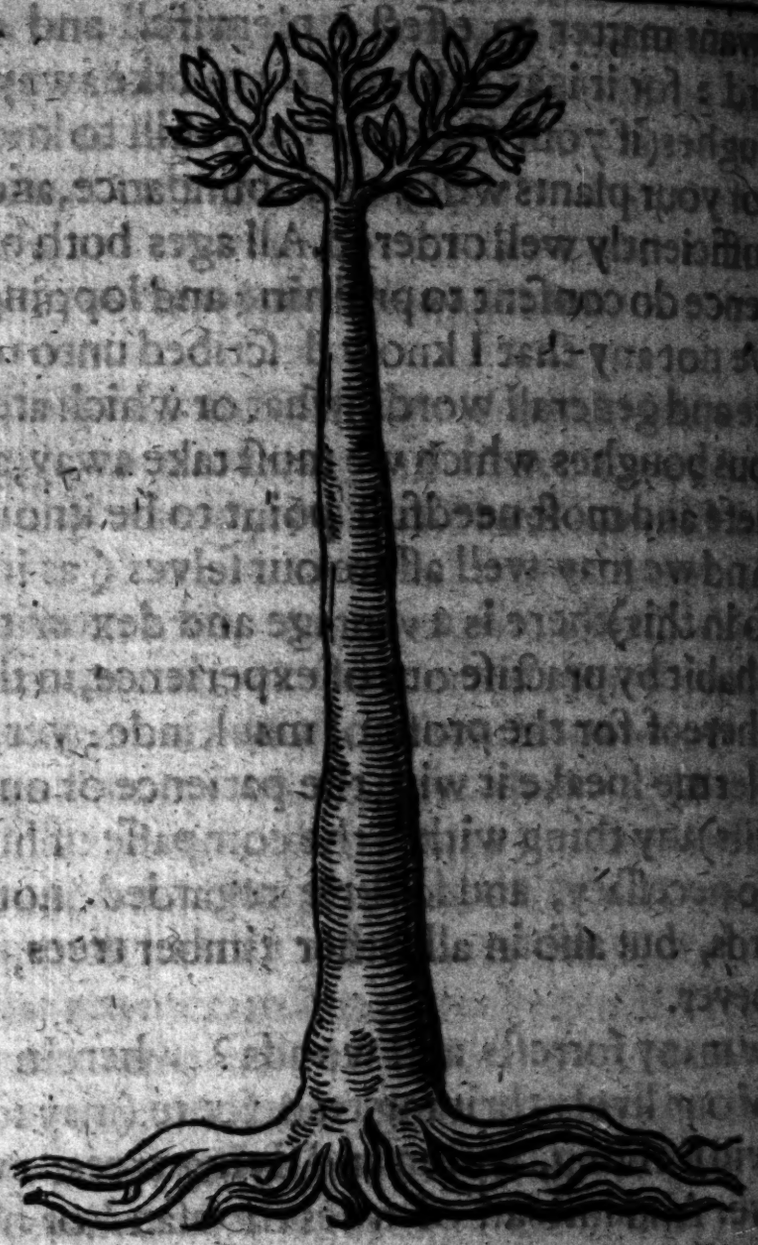
Generall rule.

never want matter to effect a plentifull and well dreſt Orchard: for it is an eaſie matter to take away ſuperfluous boughes (if your Gardner have skill to know them) whereof your plants will yeeld abundance, and skill will leave ſufficiently well ordered. All ages both by rule and experience do conſent to pruining and lopping of trees: yet have not any that I know deſcribed unto us (except in darke and generall words) what or which are thoſe ſuperfluous boughes, which we muſt take away, and that is the chiefe and moſt needfull point to be known in lopping. And we may well aſſure our ſelves (as in all other Arts, ſo in this) there is a vantage and dexterity by skill, and an habit by practiſe out of experience, in the performance hereof for the profit of mankinde; yet doe I not know (let me ſpeake it with the patience of our cunning Arboriſts) any thing within the compaſſe of humane affaires ſo neceſſary, and ſo little regarded, not onely in Orchards, but alſo in all other timber trees, where or whatſoever.

The cauſe of harm in wood.

How many forreſts and woods? wherein you ſhall have for one lively thriving tree, foure (nay ſometimes 24.) evill thriving, rotten and dying trees, even while they live. And inſtead of trees thouſand of buſhes and ſhrubs. What rottenneſſe? what hollowneſſe? what dead armes? withered tops? curtailed trunkes? what lodes of moſſes? drouping boughes? and dying branches ſhall you ſee every where? And thoſe that like in this ſort are in a manner all unprofitable boughes, cankred armes, crooked, little and ſhort boales: what an infinite number of buſhes, ſhrubs, and skrogs of hazels, thornes, and other profitable wood, which might bee brought by dreſſing to become great and goodly Trees. Conſider now the cauſe: The leſſer wood hath beene ſpoyled with

Timber wood evill dreſt.



Imagine the root to be ſpread farre wider.

The cauſe of hurts in woods.

with careleſſe, unskilfull, and untimely ſtowing, and much alſo of the great wood. The greater trees at the firſt riſing have filled and over-loaden themſelves with a number of waſtefull boughes and ſuckers, which have not onely drawne the ſap from the boale, but alſo have made it knotty, and themſelves and the boale moſſie for want of dreſſing, whereas if in the prime of growth they

they had beene taken away close, all but one top (according to this patterne) and cleane by the bulke, the strength of all the sap should have gone to the bulk, and so he would have recovered and covered his knots, and have put forth a faire, long and streight body (as you see) for timber profitable, huge great of bulke, and of infinite last. Dresse timber trees how.

If all timber trees were such (will some say) how should we have crooked wood for wheeles, coorbs, &c. *Answ.* Dresse all you can, and there will be enough crooked for those uses.

More than this, in most places, they grow so thicke, that neither themselves, nor earth, nor any thing under or neere them can thrive, nor Sunne, nor raine, nor aire can doe them, nor any thing neere or under them any profit or comfort.

I see a number of Hags, where out of one roote you shall see three or foure (nay more) such as mens unskilfull greedinesse, who desiring many have none good) pretty Okes or Ashes, straight and tall, because the root at the first shoote gives sap amaine: but if one onely of them might be suffered to grow, and that well and cleanly pruned, all to his very top, what a tree should we have in time? And wee see by those rootes continually and plentifully springing, notwithstanding so deadly wounded. What a commodity should arise to the owner, and the Common-wealth, if wood were cherished, and orderly dressed.

The waste boughes closely and skilfully taken away, would give us store of fences and fewell, and the bulke of the tree in time would grow of huge length and bignesse. But here (me thinks) I heare an unskilfull Arborist say, that trees have their severall formes, even by nature, Profit of trees dressed.

ture, the Peare, the Holly, the Aſpe, &c. grow long in bulke with few and little armes, the Oke by nature broad and ſuch like. All this I grant: but grant me alſo, that there is a profitable end, and uſe of every tree, from which if it decline (though by nature) yet man by Art may (nay muſt) correct it. Now other end of trees I never could learne, than good timber, fruit much and good and pleaſure. Uſes Phyſicall hinder nothing a good forme.

The end of Trees.

Trees will take any forme.

Neither let any man ever ſo much as thinke, that it is unprofitable, much leſſe unpoſſible, to reforme any tree of what kind ſoeuer. For (beleeve me) I have tried it, I can bring any tree (beginning by time) to any forme. The peare and holly may bee made to ſpread, and the Oke to cloſe it.

But why doe I wander out of the compaſſe of mine Orchard, into the Forreſts and Woods? Neither yet am I from my purpoſe, if boales of timber trees ſtand in need of all the ſap, to make them great and ſtraight (for ſtrong growth and dreſſing makes ſtrong trees) then it muſt needes be profitable for fruit (a thing more immediately ſerving a mans need) to have all the ſap the roote can yeeld: for as timber found, great and long, is *the good of timber trees*, and therefore they beare no fruit of worth ſo fruit, good, ſound, pleaſant, great and much, is the end of fruit-trees. That gardner therefore ſhall performe his duty skilfully and faithfully, which ſhall ſo dreſſe his trees, that they may beare ſuch and ſuch ſtore of fruit, which he ſhall never do (dare undertake) unleſſe he keep this order in dreſſing his trees.

The end of Trees.

How to dreſſe a fruit-tree.

A fruit-tree ſo ſtanding, that there need none other end of dreſſing but fruit (not ornaments for walkes, nor delight to ſuch as would pleaſe their eye onely, and yet

the

the beſt forme cannot but both adorne & delight) muſt be parted from within two foote, or thereabouts, of the earth, ſo high to give liberty to dreſſe his roote, and no higher, for drinking vp the ſape that ſhould feede his fruit, for the boale will be firſt, and beſt ſerved and fed, becauſe he is next the roote, and of greateſt waxe and ſubſtance, and that makes him longeſt of life, into two, three, or foure armes, as your ſtocke or graffes yeeld twigs, and every arme into two or more branches, and euery branch into his ſeverall Cyons. ſtill ſpreding by equall degrees, ſo that his loweſt ſpray be hardly without the reach of a mans hand, and his higheſt be not paſt two yards higher, rarely (eſpecially in the middeſt) that no one twig touch his fellow. Let him ſpread as farre as he liſt, without his maiſter-bough, or lop equally. And when any bough doth grow ſadder and fall lower, than his fellowes (as they will with weight of fruite) eaſe him the next ſpring of his ſuperfluous twigs, and he will Riſe: when any bough or ſpray ſhal amount aboue the reſt; either ſnub his top with a nip betwixt your finger and your thumbe, or with a ſharpe knife, and take him cleane away, and ſo you may uſe any Cyon you would reforme, and as your tree ſhall grow in ſtature and ſtrength, ſo let him riſe with his tops but ſlowly, and earely, eſpecially in the middeſt, and equally and in bredth alſo, & follow him vpward with lopping his under growth and warer boughes, keping the ſame diſtance of two yards, but not aboue three in any wiſe, betwixt the loweſt and the higheſt twigs.

1. Thus you ſhal haue well liking, cleane skind, healthfull great, and long laſting trees. Benefits of good dreſſing.

2. Thus ſhal your tree grow low, and ſafe from winds, for his top will be great, broad and weighty.

3. Thus

3. Thus growing broad, shall your trees beare much fruit (I dare say) one as much as sixe of your common trees, and good without shadowing, dropping and fretting; for his boughes, branches, and twigs shalbe many, and those are they (not the boale) which beare the fruit.

4. Thus shall your boale being little (not small but low) by reason of his shortnesse, take little, and yeeld much sap to the fruit.

5. Thus your trees by reason of strength in time of setting shall put forth more blossomes and more fruite being free from taints; for strength is a great helpe to bring forth much and safely, whereas weakenesse failes in setting, though the season be calme.

Some use to bare trees rootes in winter, to stay the setting till hotter seasons, which I discommend, because,

1. They hurt the rootes.

2. It stayes it nothing at al.

3. Though it did, being small, with us in the North, they have their part of our *Aprill* and *Mayes* frosts.

4. Hinderance cannot profit weake trees in setting.

5. They waste much labour.

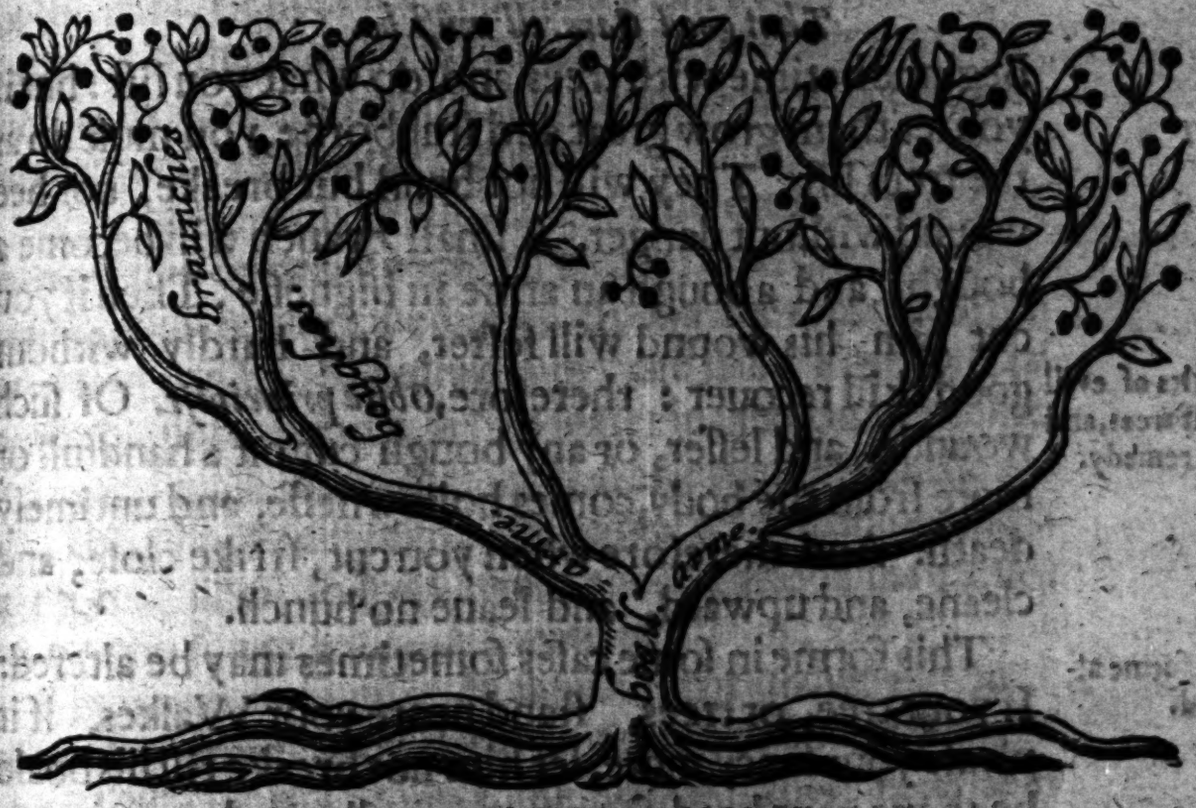
6. Thus shall your tree be easie to dresse, and without danger, either to the tree or the dresser.

7. Thus may you safely and easily gather your fruite without falling, bruising or breaking of Cyons.

This is the best forme of a fruit tree, which I haue here onely shadowed out for the better capacity of them that are led more with the eye, then the mind, craving pardon for the deformitie, because I am nothing skilfull either in painting or carving.

Imagine that the paper makes but one side of the tree to appeare, the whole round compasse will giue leaue for many more armes, boughes, branches, and Cyons.

The perfect forme of a Fruit-tree.



If any thinke a tree cannot well be brought to this forme: *Experto crede Roberto*, I can shew divers of them under twenty yeeres of age.

The fittest time of the Moone for proyning is as of grafting, when the sap is ready to stirre (not proudly stirring) and so to cover the wound, and of the yeere, a moneth before (or at least when) you graffe. Dresse Peares, Apricocks, Peaches, Cherries, and Bullyes sooner. And old trees before young plants, you may dresse at any time betwixt Leafe and Leafe. And note, where you take any thing away, the sap the next summer will be putting: be sure therefore when he puts a bud in any place where you would not have him, rub it off with your finger. Time best for proyning.

And

Dreſſing betime.

And here you muſt remember the common homely Proverbe:

Soone crookes the tree,
That good Camrell muſt be.

Beginne betime with trees, and do what you liſt: but if you let them grow great and ſtubborne, you muſt do as the trees liſt. They will not bend but breake, nor bee wound without danger. A ſmall branch will become a bough, and a bough an arme in bigneſſe. Then if you cut him his wound will feſter, and hardly without good skill recouer: therefore, *Obſta principijs*. Of ſuch wounds, and leſſer, or any bough cut off a handfull or more from the body, comes hollowneſſe, and untimely death. And therefore when you cut, ſtrike cloſe, and cleane, and upward, and leaue no bunch.

Faults of evill dreſt trees, and the remedy.

The forme altered.

This forme in ſome caſes ſometimes may be altered: If your tree, or trees, ſtand neare your Walkes, if it pleaſe your fancy more, let him not breake till his boale be aboue your head: ſo may you walke under your trees at your pleaſure. Or if you ſet your fruit-trees for your ſhades in your Groues, then I reſpect not the forme of the tree, but the comelineſſe of the walke.

Dreſſing of old trees.

All this hitherto ſpoken of dreſſing, muſt be underſtood of young plants, to be formed: it is meete ſomewhat be ſayd for the inſtruction of them that have olde trees already formed, or rather deformed: for, *Malum non vitatur niſi cognitum*. The faults therefore of a diſordered tree, I finde to be five:

Faults are five, and their remedies.

1. An unprofitable boale.
2. Water boughes.
3. Fretters.
4. Suckers. And,
5. One principall top.

A long

A long boale asketh much teeding, and the more he hath the more he desires, and gets (as a drunken man drinke, or a covetous man wealth) and the lesse remaines for the fruit, he puts his boughs into the aire, and makes them the fruit, and it selfe more dangered with winds: for this I know no remedy, after that the tree is come to growth, once evill, never good. 1. Long boale. No remedy.

Water boughes, or under growth, are such boughes as grow low under others and are by them overgrowne, over shadowed, dropped on, and pind for want of plenty of sap, and by that meanes in time die: For the sap presseth upward, and it is like water in her course, where it findeth most issue, thither it floweth by leaving the other lesser sluces dry: even as wealth to wealth, and much to more. These so long as they beare, they beare lesse, worse, and fewer fruit, and wateriſh. 2. Water boughs.

The remedy is easie, if they be not growne greater then your arme. Lop them close and cleane, and cover the middle of the wound, the next summer when he is dry, with a salve made of tallow, tarre, and a very little pitch, good for the covering of any such wound of a great tree: unlesse it be bark-pild, and then fear-clouth of fresh Butter, Honey, and Waxe, presently (while the wound is greene) applyed, is a soveraigne remedy in Summer especially. Some bind such wounds with a thumbe sope of hay, moist, and rub it with dung. Remedy. Bark-pild and the remedy.

Fretters are, when as by the negligence of the Gardner, two or moe parts of the tree, or divers trees, as armes, boughes, braunches, or twigs, grown so neere and close together, that one of them by rubbing, doth wound another. This fault of all others shewes the want of skill most: in that it forbeares the hurt apparant, and the remedy naked, feared in his ripest galls and Fretters. Touching. Remedy.

and wounds incurable, but by taking away those members: for let them grow, and they will bee worse and worse, & so kill themselves with civill strife for roome, and danger the whole tree. Avoid them betimes therefore, as a common wealth doth bosome enemies.

Suckers. A Sucker is a long, proud, and disorderly Cyon, growing straight up (for pride of sap makes proud, long, and streight growth) out of any lower parts of the tree, receiving a great part of the sap, and bearing no fruit, till it have tyrannized over the whole tree. These are like idle and great Drones amongst Bees; and proud and idle members in a commonwealth.

Remedy. The remedy of this is, as of water-boughes; unlesse he be growne greater then all the rest of the boughs, & then your Gardner (at your discretion) may leave him for his boale, and take away all, or the most of the rest. If he be little, slip him, and set him, perhaps he will take: my faireſt Apple-tree was such a slip.

One pricipall top or bough, and remedy. One or two principall top boughes are as evill, in a manner, as Suckers, they rise of the same cause, and receive the same remedy: yet these are more tolerable because these beare fruit, yea the best: but Suckers of long doe not beare.

I know not how your eare should be fouler, if you reforme all your vices timely, and orderly. As these serve for dressing yong trees and sets in the first planting: so may they well serve to helpe old trees, though not exactly to recover them.

Instruments for dressing. The instruments fittest for all these purposes most commonly: For the great trees an handsome, long, light Ladder of Firpoles, a little, double and strong armed Saw, and sharpe. For the lesse trees, a little and sharpe Hatchet, a broad mouthed chissell,

and sharpe, with an hand-bearle, your strong and sharp Cleever with a knock, and, which is a most necessary Instrument amongst little trees, a great hafted and sharpe Knife or Whittle. And as needfull is a Stoole on the top of a Ladder of 8. or more rungs, with two backe-feet, whereon you may safely and easefully stand to graffe, to dresse, and to gather fruit thus formed: The feet may be fast wedged in: but the Ladder must hang loose with two bands of iron. And thus much of dressing trees for fruit, formerly to profit.

CHAP. 12.
Of Foyling.

THere is one thing yet very necessary to make your Orchard both better, and more lasting: Yea, so necessary, that without it your Orchard cannot last, nor prosper long, which is neglected generally both in precepts and in practise, *viz.* manuring with Foile: whereby it hapneth that when trees, amongst other evills, through want of fatnesse to feed them, become mossie, and in their growth are evill, or, not thriving, it is either attributed to some wrong cause, as age, when indeed they are but young, or evill standing, stand they never so well, or such like, or else the cause is altogether unknowne, and so not amended.

Necessity of of foiling.

Can there be devised any way by nature, or art, sooner or sounder to seeke out, and take away the heart and strength of earth, then by great trees? Such great bodies cannot be sustained without great store of sap. What living

Trees great suckers.

ving body, have you greater then of trees? The great Sea-monsters, whereof one came a land at Tynemouth in *Yorkeshire*, hard by us, 18. yards in length, and neere as much in compasse, seeme hideous, huge, strange, and monstrous, because they be indeed great: but especially, because they are seldome seene: But a tree living, come to his growth and age, twice that length, and of a bulke never so great, besides his other parts, is not admired, because he is so commonly seene. And I doubt not, but if hee were well regarded from his infancy, by succeeding ages, to his full strength, the most of them would double their measure. About fifty yeeres agoe I heard by credible and constant report, That in *Brougham* Parke in *Westmerland*, neere unto *Penrith*, there lay a blowne Oake, whose trunke was so big, that two Horsemen being the one on the one side, and the other on the other side, they could not one see another: to which if you adde his armes, boughes, and roote, and consider of his bignesse, what would hee have become, if preserved to the vantage. Also I read in the History of the *West-Indians*, out of *Peter Martyr*, that fifteene men taking hands one with another, were not able to fathome one of those trees about. Now Nature having given to such, a faculty by large and infinite roots, rawes and tangles, to draw immediately his substance from our common mother, the Earth (which is like in this point to all other mothers that beare) hath also ordained that the tree overloden with fruit, and wanting sap to feed all she hath brought forth, will weine all she cannot feed, like a woman bringing forth moe children at once then shee hath teats. See you not how trees especially, by kind being great, standing so thicke and close, that they cannot get plenty of sap, pine away all the grasse, weeds,

Great bodies.

weeds, leſſer ſhrubs, and trees, yea and themſelves alſo for want of vigor of ſap? So that trees growing large, ſucking the ſoile whereon thy ſtand, continually, and amaine, and the frozen of the earth that feeds them decaying (for what is ther that wafts continually, that ſhall not have end) muſt either have ſupply of fucken, or elſe leave thriving and growing. Some grounds will beare Corne while they be new, and no longer, becauſe their cruſt is ſhallow, and not very good, and lying they ſcind and waſh, and become barren. The ordinary Corne ſoiles continue not fertile, with following and foyling, and the beſt requires ſupply, even for the little body of Corne. How then can we think that any ground (how good ſoever) can ſuſtaine bodies of ſuch greatneſſe, and ſuch great feeding, without great plenty of Sap ariſing from good earth? This is one of the chiefe cauſes, why ſo many of our Orchards in *England* are ſo evill thriving when they come to growth, and our fruit ſo bad. Men are loth to beſtow much ground, and deſire much fruit, and will neither ſet their trees in ſufficient compaſſe, nor yet feed them with manure. Therefore of neceſſity Orchards muſt be ſoiled.

The fitteſt time is, when your trees are grown great, and have neere hand ſpread your earth, wanting new earth to ſuſtaine them, which if they doe, they will ſeek abroad for better earth, and ſhun that, which is barren (if they find better) as cattell evil paſturing. For nature hath taught every creature to deſire and ſeeke his owne good, and to avoyd hurt. The beſt time of the yeere is at the Fall, that the Froſt may bite and make it tender, and the Raine waſh it into the roots. The Summer time is perillous if ye digge, becauſe the ſap ſtirs amaine. The beſt kind of Foile is ſuch as is fat, hot, and tender.

Time fit for foyling.

Kind of foyle.

tender. Your earth must be but lightly opened, that the dung may goe in, and wash away; and but shallow, lest you hurt the roots: and in the Spring, closely and equally made plaine againe for feare of Suckers. I could wish, that after my trees have fully possessed the soile of mine Orchard, that every seven yeeres at least, the soile were bespread with dung halfe a foot thicke at least. Puddle water out of the dunghil powred on plentifully, will not onely moisten but fatten especially in *June* and *July*. If it be thicke and fat, and applied every yeere, your Orchard shal need none other soiling. Your ground may lye so low at the River side, that the flood standing some daies and nights thereon, shall save you all this labour of soiling.

Chap. XIII.

Of annoyances.

A Chiefe helpe to make every thing good, is to avoyd the evils thereof: you shal never attaine to that good of your Orchard you looke for, unles you have a Gardner that can discern the diseases of your trees and other annoyances of your Orchard, & find out the causes thereof, and know and apply fit remedies for the same. For be your ground, site, plants, and trees as you would wish, if they be wasted with hurtfull things, what have you gained but your labour for your travell? It is with an orchard & every tree, as with mans body. The best part of physicke for preservation of health, is to foresee and cure diseases.

Two kinds of evils in an Orchard.

All the diseases of an Orchard are of two sorts, either internall or externall. I call those inward hurts which breed on and in particular trees.

1 Galles

1 Galles. 5 Barke bound.
2 Canker. 6 Barke pild.
3 Mosse. 7 Worme.
4 Weaknes in setting. 8 Deadly wounds.

Galles, Canker, Mosse, weaknes, though they be divers diseases: yet (howsoever Authors thinke otherwise) they rise all out of the same cause. Galles.

Galles we have described with their cause and remedy, in the 11. Chapter under the name of frretters.

Canker is the consumption of any part of the tree, barke and wood, wich also in the same place is decei- Canker.
phered under the title of water-boughes.

Mosse is sensibly seene and knowne of all, the cause is pointed out in the same chapter, in the discourse of tim- Mosse.
ber-wood, and partly also the remedy: but for Mosse adde this, that at any time in summer (the Spring is best when the cause is removed, with an Haircloth immediatly after a showre of raine, rub off your Mosse, or with a peece of weed (if the Mosse abound) formed like a great knife.

Weakneſse in the setting of your fruit shall you find Weakneſse
there also in the same Chapter, and his remedy. All in setting.
these flow from the want of roomth in good soile, wrong planting, Chap. 7. and evill or no dressing.

Barke-bound (as I thinke) riseth of the same cause, & Barke-bound.
the best & present remedy (the causes being take away) is with your sharpe knife in the Spring, length-way to launch his bark throughout, on 3. or 4. sides of his boale.

The disease called the worme is thus discernd: The Worme.
barke will be hould in divers places like gall, the wood wil die and dry, & you shall see easily the bark swell. It is verily to be thought, that therein is bred some worm I have not yet throghly sought it out, because I was never troubled

troubled therewithall: but onely have seene such trees in divers places. I thinke it a worme rather, because I see this disease in trees, bringing fruit of sweet taste, and the swelling shewes as much. The remedy (as I conjecture) is so soone as you perceive the wound, the next Spring cut it out barke and all, and apply Cowes pisse, and vineger presently, and so twice or thrice a weeke for a moneths space: For I well perceive, if you suffer it any time, it eates the tree or bough round, and so kils.

Remedy.

Since I first wrote this Treatise, I have changed my mind concerning the disease called the worme, because I read in the History of the *West Indies*, that their trees are not troubled with the disease called the worme or canker, which ariseth of a raw and evill concocted humor or sap. Witnesse *Pliny*, by reason their country is more hot then ours, whereof I thinke the best remedy is (not disallowing the former, considering that the worme may breed by such an humor) warme standing, sound lopping and good dressing.

Barke-pild.

Barke-pild you shall find with his remedy in the 11. Chapter.

Wounds.

Deadly wounds are when a mans Arborist wanting skill, cut off armes boughes or branches an inch, or (as I see sometimes) an handfull, or halfe a foot or more from the body: These so cut cannot cover in any time with sap, and therefore they die, and dying they perish the heart, and so the tree becomes hollow, and with such a deadly wound cannot live long.

Remedy.

The remedy is, if you find him before he be perished, cut him close, as in the 11. Chapter: if he be hoald, cut him close, fill his wound, tho never so deepe, with morter well tempered, & so close at the top his wound with a Seare-cloth doubled and nailed on, that no aire nor raine

raine approach his wound. If he be not very old, and detaining, he will recover, and the hole being closed, his wound within shall not hurt him for many yeeres.

Hurts on your trees are chiefly Ants, Earewigs, and Caterpillers. Of ants and Earewigs is said Chap. 10. Let there be no swarme of Pismires neere your tree-root, no not in your Orchard, turn them over in a frost, and powre in water, and you kil them. Hurts on trees. Ants, Earewigs, Caterpillars, and such like wormes.

For Caterpillers, the vigilant Fruterer shall soone espy their lodging by their web, or the decay of leaves eaten round about them. And being seene, they are easily destroyed with your hand, or rather (if your tree may spare it) take sprig and all (for the red peckled butter-fly doth ever put them, being her sparm, among the tender spraies for better feeding, especially in drought, and tread them under your feet. I like nothing of smoke among my trees. Vnnaturall heates are nothing good for naturall trees. This for diseases of particular trees.

Externall hurts are either things naturall or artificiall. Naturall things, externally hurting Orchards. Externall evils.

1 Beasts.
1 Deere.
2 Goates.
3 Sheepe.
4 Hare.
5 Cony.
6 Cattell.
7 Horse.

2 Birds.
1 Bullfinch.
2 Thrush.
3 Blackbird.
4 Crow.
5 Pye.
&c.

The other things are,
1 Winds.
2 Cold.
3 Trees.
4 Weeds.
5 Wormes.
6 Mowles.

6 Moles.
7 Filth.
8 Poyſon full ſmoake.

Externall wilfull evils are theſe.

1 Walls.
2 Trenches.
3 Other works noiſome done in or neere (your Orchard.
4 Evill Neighbours.
5 A careleſſe Maſter.
6 An undiſcreet, negligent or no keeper.

See you here an whole army of miſchiefes banded in troupes againſt the moſt fruitfull trees the earth bears? aſſailing your good labours. Good things have moſt enemies.

Remedy. A skilfull Fructerer muſt put to his helping hand & disband and put them to flight.

Deere, &c. For the firſt rank of beaſts, beſides your out ſtrong fence; you muſt have a faire and ſwift Grey hound, a ſtone-bow, gun, and if need require, an apple with an hooke for a Deere, and an Hare-pipe for an Hare.

Birds: Your Cherries and other berries when they be ripe, will draw all the Blacke-birds, Thruſhes, and Maw-Pies to your Orchard. The Bul-finch is a devourer of your Fruit in the bud, I have had whole trees ſhald out with them in Winter-time.

Remedy. The beſt remedy here is a ſtone-bow, a Piece, eſpecially if you have a muſket or Spar-hawke in Winter to make the Blacke-birde ſtoope into a buſh or hedge.

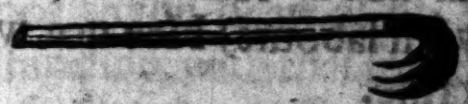
Other trees. The Gardner muſt cleanſe his foile of al other trees but fruit-trees aforeſaid Chapter 2. for which it is ordained, and I would eſpecially name Oakes, Elmes, Aſhes, and ſuch other great wood, but that I doubt it ſhould be take as an admiſſion of leſſer trees: for I admit

of

of nothing to grow in mine Orchard but fruit and flowers. If sap can hardly be good to feed our fruit-trees, why should we allow of any other, especially those, that will become their masters, & wrong them in their livelihood

And although we admit without the fence of Wall-nuts in most plaine places, Trees middlemost, and ashes or Okes, or Elmes utmost, set in comely rowes equally distant with faire Allies twixt row and row to avoide the boisterous blasts of winds, and within them also others for Bees; yet we admit none of these into your Orchard-plat: other remedy then this have we none against the nipping frosts. Winds. Frosts.

Weeds in a fertile soile (because the generall curse is so) till your Trees grow great, will be noysome, and deforme your allies, walkes, beds, and squares, your under Gardners must labour to keepe all cleanly & handsome from them, and all other filth with a Spade, weeding knives, rake with iron teeth: a skrapple of Iron thus formed. Weeds.



For Nettles and ground-Ivy after a showre.

When weeds, straw, stickes, and all other scrapings are gathered together, burn them not, but bury them under your crust in any place of your Orchard, and they will die and fatten your ground. Remedy.

Wormes and Moales open the earth, and let in aire to the roots of your trees, and deforme your squares and walkes, and feeding in the earth, being in number infinite, draw on barrennesse. Wormes. Moales.

Wormes may easily be destroyed. Any Summer evening when it is darke, after a showre with a candle, you may fil bushels, but you must tread nimbly, & where Remedy.

you

you cannot come to catch them so, sift the earth with coale ashes an inch or two thicknes, and that is a plague to them, so is sharpe gravell.

Moales will anger you, if your Gardner or some skilfull Moale-catcher ease you not, especially having made ther fortresses among the roots of your trees: you must watch her well with a Moal-spare, at morn, noon, and night, when you see her utmost hill, cast a Trench betwixt her & her home (for she hath a principall mansion to dwell and breed in about *Aprill*, which you may discerne by a principall hil, wherein you may catch her, if you trench it round and sure, and watch well) or whersoever you can discerne a single passage (for such she hath) there trench, and watch, and have her.

Wilfull annoyances must be prevented and avoyded by the love of the Master and Fruterer, which they beare to their Orchard.

Wilfull annoyances.

Iustice and liberality will put away evill neighbours or evill neighbour-hood. And then (if God blesse and give successe to your labours) I see not what hurt your Orchard can sustaine.

Remedy.

Chap. XIIII.

of the age of Trees.

IT is to be considered: All this Treatise of trees tends to this end, that men may love and plant Orchards, whereunto there cannot be a better inducement then that they know (or at least be perswaded) that all that benefit they shall reape thereby, whether of pleasure or profit, shall not be for a day or a month, or one, or many (but many hundred) yeeres. Of good things the greatest, and most durable is alwaies the best. If therefore out of reason

reason grounded upon experience, it be made (I thinke) manifest, but I am sure probable, that a fruit-tree in such a soile and free, as is described so planted and trimmed and kept, as is afore appointed, and duely soiled, shall dure 1000. yeeres, why should we not take paines, and be at two or three yeeres charges (for under seven yeeres will an Orchard be perfected for the first planting, and in that time be brought to fruit) to reape such a commodity and so long lasting. The age of trees.

Let no man thinke this to be strange, but peruse and consider the reason. I have Apple trees standing in my little Orchard, which I have knowne these forty yeeres, whose age before my time I cannot learne, it is beyond memory, though I have enquired of divers aged men of 80. yeeres and upwards: these trees although come into my possession very evill ordered, misshapen, and one of them wounded to his heart, and that deadly (for I know it will be his death) with a wound wherein I might have put my foot in the heart of his bulke (now it is lesse) notwithstanding, with that small regard they have had since, they so like, that I assure my selfe they are not come to their growth by more then 2. parts of 3. which I discerne not onely by their owne growth, but also by comparing them with the bulke of other trees. And I find them short (at least) by so many parts in bigneſſe, although I know those other fruit-trees to have beene much hindred in their stature by evill guiding. Herehence I gather thus. Gathered by reason out of experience.

If my trees be a hundred yeeres old, and yet want two hundred of their growth before they leave increasing, which make three hundred, then wee must needs resolve, that this three hundred yeeres are but the third part of a trees life, because (as all things living besides) Parts of a trees age.

so

so trees must have allowed them for their increase one third, another third for their stand, and a third part of time also for their decay. All which time of a Tree amounts to nine hundred yeeres, three hundred for increase, three hundred for his stand, whereof wee have the tearme stature, and three hundred for his decay, and yet I thinke, for we must conjecture by comparing, because no one man liveth to see the full age of trees, I am within the compasse of his age, supposing alwaies the foresaid meanes of preserving his life. Consider the age of other living creatures. The Horse and moiled Oxe wrought to an untimely death, yet double the time of their increase. A Dog likewise increaseth three, stands three at least, and in as many, or rather more, decayes.

Mans age.

Every living thing bestowes the least part of his age in his growth, and so must it needs be with trees. A man comes not to his full growth and strength (by common estimation) before thirty yeeres, and some slender and clean bodies not till 40. so long also stands his strength, and so long also must we have allowed by course of nature to decay. Ever supposing that he be well kept with necessaries, and from and without straines, bruises, and all other domineering diseases. I will not say upon true report, that Physicke holds it possible, that a cleane body kept by these three Doctours, *Doctour Diet, Doctour Quiet, and Doctour Merriman*, may live neere a hundred yeeres. Neither will I here urge the long yeeres of *Methushalah*, and those men of that time, because you will say, Mans daies are shortned since the floud. But what hath shortned them? God for mans sinnes? but by meanes, as want of knowledge, evill government, riot, gluttony, drunkennesse, and (to be short) the encrease of

the

the curſe, our ſins increaſing in an iron and wicked age.

Now if a man, whoſe body is nothing, in a manner, but tender rottenneſſe, whoſe courſe of life cannot by any meanes, by counſell, reſtraint of lawes, or puniſhment, nor hope of praiſe, profit, or eternall glory, be kept within any bounds, who is degenerate cleane from his naturall feeding, to effeminate niceneſſe, and cloying his body with exceſſe of meat, drinke, ſleepe, &c. and to whom nothing is ſo pleaſant and ſo much deſired, as the cauſes of his owne death, as idleneſſe, luſt, &c. may live to that age: I ſee not but a tree of a ſolid ſubſtance, not damnified by heate or cold; capable of, and ſubject to any kinde of ordering or dreſſing that a man ſhall apply unto him, feeding naturally, as from the beginning diſburdened of all ſuperfluities, eaſed of, and of his owne accord avoiding the cauſes that may annoy him, ſhould double the life of a man, more then twice told; and yet naturall Phyloſophy, and the univerſall conſent of all Hiſtories tell us, that many other living creatures farre exceed man in the length of yeeres: As the Hart and the Raven. Thus reporteth that famous *Roterodam* out of *Heſiodus*, and many other Hiſtoriographers. The teſtimony of *Tully* in his booke *De Senectute*, is weighty to this purpoſe: that we muſt *in poſteros ita ſatas ſerere arbores*, which can have none other ſenſe; but that our fruit-trees whereof he ſpeakes, can endure for many ages.

What elſe are trees in compariſon with the earth but as haires to the body of a man? And it is certaine, without poiſoning, evill and diſtemperate diet, and uſage, or other ſuch forcible cauſe, the haires dure with the body. That they be called excrements, it is by reaſon of their ſuperfluous growth: for cut them as often as you liſt,

and

and they will ſtill come to their naturall length. Not in reſpect of their ſubſtance, and nature. Haires endure long, and are an ornament and uſe alſo to the body, as trees to the earth.

So that I reſolve upon good reaſon, that fruit-trees well ordered, may live and like a thouſand yeeres, and beare fruit, and the longer, the more, the greater, and the better, becauſe his vigour is proud and ſtronger, when his yeares are many: You ſhall ſee old trees put their buds and bloſſomes both ſooner and more plentifully then yong trees by much. And I ſenſibly perceive my yong trees to enlarge their fruit, as they grow greater, both for number, and greatneſſe. Yong Heifers bring not forth Calves ſo faire, neither are they ſo plentifull to milke, as when they become to bee old Kine. No good Houſwife will breed of a young but of an old bird-mother: It is ſo in all things naturally, therefore in trees.

The age of timber-trees.

And if fruit-trees laſt to this age, how many ages is it to be ſuppoſed, ſtrong and huge timber-trees will laſt? whoſe huge bodies require the yeeres of divers *Methuſalahs*, before they end their daies, whoſe ſap is ſtrong and bitter, whoſe barke is hard and thicke, and their ſubſtance ſolid and ſtiffe: all which are defences of health and long life. Their ſtrength withſtands all forcible winds, their ſap of that quality is not ſubject to wormes and tainting. Their barke receives ſeldome or never by caſualty any wounds. And not onely ſo, but he is free from removals, which are the death of millions of trees, whereas the fruit-tree in compariſon is [illegible] and often blowne downe, his ſap ſweet, eaſily [illegible] tainted, his barke tender, and ſoone wounded and [illegible] removed by man, as man uſeth himſelfe. [illegible] unleſſe

han

unskillfully or careleſſely.

It is good for ſome purpoſes to regard the age of your fruit trees, which you may eaſily know, till they come to accompliſh twenty yeeres, by his knots: Reckon from his roote up an arme, and ſo to his top twig, and every yeeres growth is diſtinguiſhed from other by a knot, except lopping or removing doe hinder. Age of trees diſcerned.

Chap. XV.

Of gathering and keeping Fruit.

Although it be an eaſie matter, when God ſhall ſend it, to gather and keepe fruit, yet are they certaine things worthy your regard. You muſt gather your fruit when it is ripe, and not before, elſe will it wither and be tough and ſowre. All fruit generally are ripe, when they beginne to fall. For Trees doe as all other bearers doe, when their young ones are ripe, they will waine them. The Dove her Pigeons, the Cony her Rabbets, and women their children. Some fruit tres ſometimes getting a taint in the ſetting with a froſt or evill winde, will caſt his fruit untimely: but not before he leave giving them ſap, or they leave growing. Except from this foreſaid rule, Cherries, Damſons, and Bullies. The Cherry is ripe when he is ſweld wholy red, & ſweet: Damſons & Bullies not before the firſt froſt. Generall Rule. Cherries, &c.

Apples are knowne to be ripe, partly by their colour, growing towards a yellow, except the Leather-coat and ſome Peares and Greening. Apples.

Timely Summer fruit will be ready, ſome at Midſummer, moſt at Lammas for preſent uſe; but generally no keeping fruit before *Michaeltide*. Hard Winter fruit and Wardens longer. When.

Dry ſtalkes. Gather at the full of the Moone for keeping, gather dry for feare of rotting.

Gather the ſtalkes with all: for a little wound in fruit, is deadly: but not the ſtumpe, that muſt beare the next fruit, nor leaves, for moyſture putrifies.

Severally. Gather every kind ſeverally by it ſelfe, for all will not keep alike, and it is hard to diſcerne them, when they are mingled.

Overladen trees. If your trees be over-laden (as they will be, being ordered, as is before taught you) I like better of pulling ſome off (though they bee not ripe) neere the top end of the bough, then of propping by much, the reſt ſhall bee better fed. Propping puts the bough in danger, and frets it at leaſt.

Inſtruments. Inſtruments: a long ladder of light Firre: a ſtoole-ladder, as in the 11. chapter. A gathering apron like a pooke before you, made of purpoſe, or a wallet hung on a bough, or a basket with a ſive bottome, or skin bottome, with lathes or ſplinters under, hung in a rope to pull up and downe: bruiſe none, every bruiſe is to fruit death: if you doe, uſe them preſently. An hooke to pull boughs to you is neceſſary, breake no boughes.

Bruiſes.

Keeping. For keeping, lay them in a dry Loft, the longeſt keeping Apples firſt and furtheſt on dry ſtraw, on heapes ten or fourteene dayes, thicke, that they may ſweat. Then dry them with a ſoft and cleane cloath, and lay them thin abroad. Long keeping fruit would be turned once in a moneth ſoftly: but not in nor immediately after froſt. In a loft cover well with ſtraw, but rather with chaffe or bran: For froſt doth cauſe tender rottenneſſe.

CHAP.

Chap. XVI.

Of Profits.

NOw pause with your selfe, and view the end of all your labours in an Orchard: unspeakable pleasure, and infinite commodity. The pleasure of an Orchard I referre to the last Chapter for the conclusion: and in this Chapter, a word or two of the profit, which thorowly to declare is past my skill: and I count it as if a man should attempt to adde light to the Sun with a Candle, or number the Stars. No man that hath but a meane Orchard or iudgement but knowes, that the commodity of an orchard is great: Neither would *I* speake of this being a thing so manifest to all, but that *I* see, that through the careleſſe lazineſſe of men, it is a thing generally neglected. But let them know, that they lose hereby the chiefest good which belongs to house-keeping.

Compare the commodity that commeth of halfe an acre of ground, set with fruit-trees and herbes, so as is prescribed, and an whole acre (say it be two) with Corn, or the best commodity you can wish, and the Orchard shall exceed by divers degrees.

Cydar and Perry.

In *France* and some other Countries, and in *England*, they make great use of Cyder and Perry, thus made: Dresse every Apple, the stalke, upper end, and all galles away, stamp them, & strain them, and within 24 houres tun them up into cleane, sweet, and sound vessels, for feare of evil ayre, which they wil readily take: and if you hang a poakefull of Cloves, Mace, Nutmegs, Cinamon, Ginger, and pils of Lemmons in the midst of the vessel, it will make it as wholesome and pleasant as wine. The like usage doth Perry require.

These drinkes are very wholsome, they coole, purge and prevent hot Agues. But I leave this skill to Physitians.

Fruit. The benefit of your Fruit, Roots and Hearbs, though it were but to eate and felt, is much.

Waters. Waters distilled of Roses, Woodbind, Angelica, are both profitable and wondrous pleasant, and comfortable.

Conserve. Saffron and Licoras will yeeld you much Conserves and preserves, are ornaments to your Feasts, health in your sickenesse, and a good helpe to your friend, and to your purse.

Hee that will not bee moved with such unspeakeable profits, is well worthy to want, when others abound in plenty of good things.

Chap. XVII.

Ornaments.

METhinkes hitherto we have but a bare Orchard for fruit, and but halfe good, so long as it wants those comely Ornaments, that should give beauty to all our labours, and make much for the honest delight of the owner and his friends.

Delight the chiefe end of Orchards. For it is not to bee doubted: but as God hath given man things profitable, so hath hee allowed him honest comfort, delight, and recreation in all the works of his hands. Nay, all his labours under the Sunne without this are troubles, and vexation of mind: For what is greedy gaine, without delight, but moyling, and unmoyling in slavery? But comfortable delight, with content, is the good of every thing, and the patterne of heaven. A morsell of bread with comfort, is better by much then a fat Oxe with unquietnesse. And

who

who can deny, but the principall end of an Orchard, is the honeſt delight of one wearied with the works of his lawfull calling? The very workes of, and in an Orchard and Garden, are better then the eaſe and reſt of and from other labours. When God hath made man after his owne Image, in a perfect ſtate, and would have him to repreſent himſelfe in authority, tranquillity, and pleaſure upon the earth, he placed him in *Paradiſe*. What was *Paradiſe*? but a Garden and Orchard of trees and hearbs, full of pleaſure? and nothing there but delights. The gods of the earth, reſembling the great God of heaven in authority, Majeſty, and abundance of all things, wherein is their moſt delight? and whither doe they withdraw themſelves from the troubleſome affaires of their eſtate, being tyred with the hearing and judging of litigious Controverſies? choked (as it were) with the cloſe ayres of their ſumptuous buildings, their ſtomacks cloyed with variety of Banquets, their eares filled and overburthened with tedious diſcourſings? whither? but into their Orchards? made and prepared, dreſſed and deſtinated for that purpoſe, to renue and refreſh their ſences, and to call home their over-wearied ſpirits. Nay, it is (no doubt) a comfort to them, to ſet open their Caſements into a moſt delicate Garden and Orchard, whereby they may not onely ſee that, wherein they are ſo much delighted, but alſo to give freſh, ſweet, and pleaſant ayre to their Galleries and Chambers.

An Orchard delightſome.

An Orchard in Paradiſe.

Cauſes of wearifomeneſſe.

Orchard is the remedy.

And looke, what theſe men do by reaſon of their greatneſſe and ability, provoked with delight, the ſame doubtleſſe would every of us do, if power were anſwerable to our deſires, whereby we ſhew manifeſtly, that of all other delights on earth, they that are taken by Orchards, are

All delight in Orchards.

are moſt excellent and moſt agreeing with nature.

This delights all the ſences.

For whereas every other pleaſure commonly fills ſome one of our ſences, and that onely, with delight, this makes all our ſences, ſwim in pleaſure and that with infinite variety joyned with no leſſe commodity.

Delighteth old age.

That famous *Philoſopher*, and matchleſſe Orator, M. T. C. preſcribeth nothing more fit, to take away the tediouſneſſe and heavy loade of three or fourſcore yeeres, then the pleaſure of an Orchard.

Cauſes of delight in an Orchard.

What can your eye deſire to ſee, your eares to heare, your mouth to taſte, or your noſe to ſmell, that is not to be had in an Orchard, with abundance of variety? What more delightſome then an infinite variety of ſweet ſmelling flowers? decking with ſundry colours, the greene mantle of the Earth, the univerſall mother of us all; ſo by them be ſpotted, ſo dyed, that all the World cannot ſample them, and wherein it is more fit to admire the Dyer, then imitate his workmanſhip. Colouring not only the earth, but decking the ayre, and ſweetning every breath and ſpirit.

Flowres.

The Roſe red, dammaske, velvet, and double double province Roſe, the ſweet muske Roſe double and ſingle, the double and ſingle white Roſe. The faire and ſweet ſenting Woodbine, double and ſingle, and double double. Purple Cowſlips, and double Cowſlips, and double double Cowſlips. Primroſe double and ſingle. The Violet nothing behind the beſt, for ſmelling ſweetly. A thouſand more will provoke your content.

Borders and ſquares.

And all theſe, by the skill of your Gardner, ſo comely, and orderly placed in your Borders and Squares, and ſo intermingled that none looking thereon, cannot but wonder, to ſee, what Nature corrected by Art can doe.

When

When you behold in divers corners of your Orchard *Mounts* of ſtone, or wood curiouſly wrought within and without, or of earth covered with fruit-trees: Kentiſh Cherry, Damſons, Plummes, &c. with ſtaires of precious workmanſhip. And in ſome corner (or moe) a true Dyall or Clocke, and ſome Anticke-workes, and eſpecially ſilver-ſounding Muſique, mixt Inſtruments and voices, gracing all the reſt: How will you be wrapt with delight? Mounts. whence you may ſhoot a Bucke. Dyall. Muſique.

Large Walkes, broad and long, cloſe and open, like the *Temple* groves in *Theſſalie*, raiſed with gravell and ſand, having ſeats and banks of Camomile, all this delights the minde, and brings health to the body. Walkes. Seates.

View now with delight the workes of your owne hands, your fruit-trees of all ſorts, loaden with ſweet bloſſomes, and fruit of all taſts, operations, and colours: your trees ſtanding in comely order which way ſoever you looke. Order of trees.

Your borders on every ſide hanging and drooping with Feberries, Raſpberries, Barberries, Currents, and the rootes of your trees powdred with Strawberries, red, white, and greene, what a pleaſure is this? Your Gardner can frame your leſſer wood to the ſhape of men armed in the field, ready to give battell: or ſwift running Greyhounds: or of well ſented and true running Hounds, to chaſe the Deere, or hunt the Hare. This kind of hunting ſhall not waſte your corne, nor much your coyne. Shape of men and beaſts.

Mazes well framed a mans height, may perhaps make your friend wander in gathering of berries, till he cannot recover himſelfe without your help. Mazes.

To have occaſion to exerciſe within your Orchard: it ſhall be a pleaſure to have a Bowling Alley, or rather Bowling-Alley.

(which is more manly, and more healthfull) a paire of
Buts. Buts, to ſtretch your armes.

Herbes. Roſemary and ſweete Eglantine are ſeemely ornaments about a Doore or Window, and ſo is Woodbinde.

Conduit. Looke Chapter 5. and you ſhall ſee the forme of a Conduite. If there were two or more, it were not amiſſe.

River. And in mine opinion, I could highly commend your Orchard, if either through it, or hard by it there ſhould runne a pleaſant River with ſilver ſtreames: you might ſit in your Mount, and angle a peckled Trout, or ſleighty Eele, or ſome other dainty Fiſh. Or moats,

Moats. whereon you might row with a Boate, and fiſh with Nettes.

Bees. Store of Bees in a dry and warme Bee-houſe, comely made of Fir-boords, to ſing, and ſit, and feede upon your flowers and ſprouts, make a pleaſant noiſe and ſight. For cleanely and innocent Bees, of all other things, loue and become, and thriue in an Orchard. If they thriue (as they muſt needs, if your Cardiner bee skilfull, and loue them: for they loue their friends, and hate none, but their enemies) they will, beſides the pleaſure, yeeld great profit, to pay him his wages. Yea, the increaſe of twenty Stockes or Stooles, with other fees, will keepe your Orchard.

You need not doubt their ſtings, for they hurt not whom they know, and they know their keeper and acquaintance. If you like not to come amongſt them, you need not doubt them: for but neere their flore and in their owne defence, they will not fight, and in that caſe onely (and who can blame them?) they are manly, and fight deſperately. Some (as that honorable Lady

at *Harkness*; whose name doth much grace mine Orchard) use to make seats for them in the stone wall of their Orchard, or Garden, which is good, but wood is better.

A Vine over-shadowing a seate, is very comely, though her Grapes with us ripe slowly. Vine.

One chiefe grace that adornes an Orchard, I cannot let slip: A brood of Nightingales, who with severall notes and tunes, with a strong delightsome voyce, out of a weake body, will beare you company night and day She loves (and lives in) hots of woods in her hart. She will helpe you to cleanse your trees of Caterpillers, and all noysome wormes and flyes. The gentle Robin-red-breast will helpe her, and in winter in the coldest stormes will keepe a part. Neither will the silly Wren be behind in Summer, with her distinct whistle (like a sweet Recorder) to cheere your spirits. Birds. Nightingale. Robin-red-breast. Wren.

The Black-bird and Threstle (for I take it the Thrush sings not, but devours) sing loudly in a *May* morning, and delights the eare much (and you need not want their company, if you have ripe Cherries or Berries, and would as gladly as the rest doe your pleasure:) But I had rather want their company than my fruit. Blake-bird. Thrush.

What shall I say? A thousand of Pleasant delights are attended in an Orchard: and sooner shall I bee weary, then I can reckon the least part of that pleasure, which one that hath and loves an Orchard, may finde therein.

What is there of all these few that I have reckoned, which doth not please the eye, the eare, the smell, and taste? And by these senses as Organes, Pipes, and windowes, these delights are carried to refresh the gentle, generous, and noble mind.

To

Your owne labour.

To conclude, what joy may you have, that you li-
ving to such an age, shall see the blessings of God on
your labours while you live, and leave behind you to
heires or successors (for God will make heires) such a
worke, that many ages after your death, shall record
your love to their Country? And the rather,
when you consider (*Chap.* 14.) to what
length of time your worke is
like to last.

FINIS.

BRITISH MUSEUM

THE COVNTRY HOVSE-WIVES GARDEN,

Containing Rules for Hearbs and Seeds of Common use, with their times and seasons when to set and sow them.

Together,

With the Husbandry of Bees, published with secrets very necessary for every *Housewife*: As also diverse new Knots for Gardens.

The Contents see at large in the last Page.

Genes. 2. 29.

I have given unto you every Herbe, and every tree, that shall bee to you for meate.

LONDON,
Printed by *Anne Griffin* for *Iohn Harrison*, at the Golden Vnicorne in Pater-noster-row. 1637.

THE

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Gen. 1. 29.

Behold I have given you every Herb, and every tree, that shall bear fruit for meat.

LONDON,

Printed by Anne Griffin, for Nath. Brook, at the Golden Unicorn in Cornhill, near the Exchange. 1647.

THE COVNTRY-HOVSWIFES GARDEN.

Chap. I.

The Soyle.

THe ſoyle of an Orchard and Garden, differ onely in theſe three points: Firſt, the Gardens ſoyle would bee ſomewhat dryer, becauſe herbes being more tender then trees, can neyther abide moyſture nor drought, in ſuch exceſſive meaſure, as trees; and therefore having a dryer ſoyle, the remedy is eaſie againſt drought, if need be: water ſoundly, which may be done with ſmall labour, the compaſſe of a Garden being nothing ſo great, as of an Orchard, and this is the cauſe (if they know it) that Gardners raiſe their ſquares: but if moyſture trouble you, I ſee no remedy without a generall danger, except in Hops, which delight much in a low and ſappy earth. Dry. Hops.

Secondly, the ſoyle of a Garden would be plaine and levell,

Plaine.

levell, at leaſt every ſquare (for we purpoſe the ſquare to be the fitteſt forme) the reaſon: the earth of a garden wanting ſuch helpes, as ſhould ſtay the water, which an orchard hath, and the roores of herbes being ſhort, and not able to fetch their liquor from the bottome, are more annoyed by drought, and the ſoyle being mellow and looſe, is ſoone either waſht away, or ſends out his heart by too much drenching and waſhing.

Thirdly, if a garden ſoyle bee not cleere of weedes, and namely, of graſſe, the hearbes ſhall never thrive: for how ſhould good herbes proſper, when evill weeds wax ſo faſt: conſidering good herbs are tender in reſpect of evill weeds: theſe being ſtrengthened by nature, and the other by art? Gardens have ſmall place in compariſon, and therfore may be more eaſily fallowed, at the leaſt one halfe yeare before, and the better dreſſed after it is framed. And you ſhall finde that cleane keeping doth not onely avoide danger of gathering weeds, but alſo is a ſpeciall ornament, and leaves more plentifull ſap for your tender herbs.

CHAP. II.

Of the Sites.

I Cannot ſee in any ſort, how the ſite of the one ſhould not be good, and fit for the other: The ends of both being one, good, wholeſome, and much fruit ioyned with delight, unleſſe trees be more able to abide the nipping froſts then tender herbes: but I am ſure, the flowers of trees are as ſoone periſhed with cold, as any herb except Pumpions, and Melons.

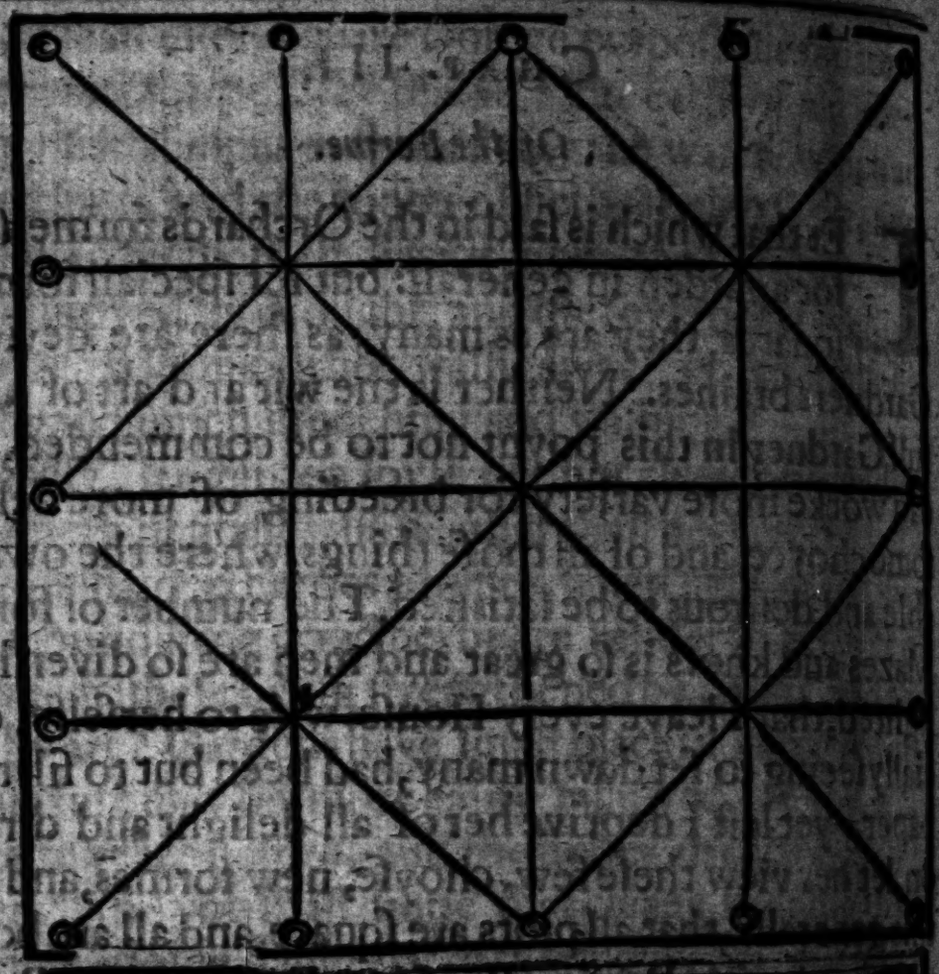
CHAP.

Chap. III.

Of the Forme.

LEt that which is ſaid in the Orchards forme, ſuffice for a garden in generall: but for ſpeciall formes in ſquares, they are as many, as there are devices in Gardners braines. Neither is the wit and art of a skillfull Gardner in this poynt not to be commended, that can worke more variety for breeding of more delightſome choyce, and of all thoſe things, where the owner is able and deſirous to be ſatisfied. The number of formes, Mazes and knots is ſo great, and men are ſo diverſly delighted, that I leave every Houſe-wife to herſelfe, eſpecially ſeeing to ſet down many, had been but to fill much paper; yet leſt I deprive her of all delight and direction, let her view theſe few, choyſe, new formes, and note this generally, that all plots are ſquare, and all are bordered about with Privit, Raiſins, Fea-berries, Roſes, Thorn, Roſemary, Bee-flowers, Iſop, Sage, or ſuch like.

The ground plot for knots.



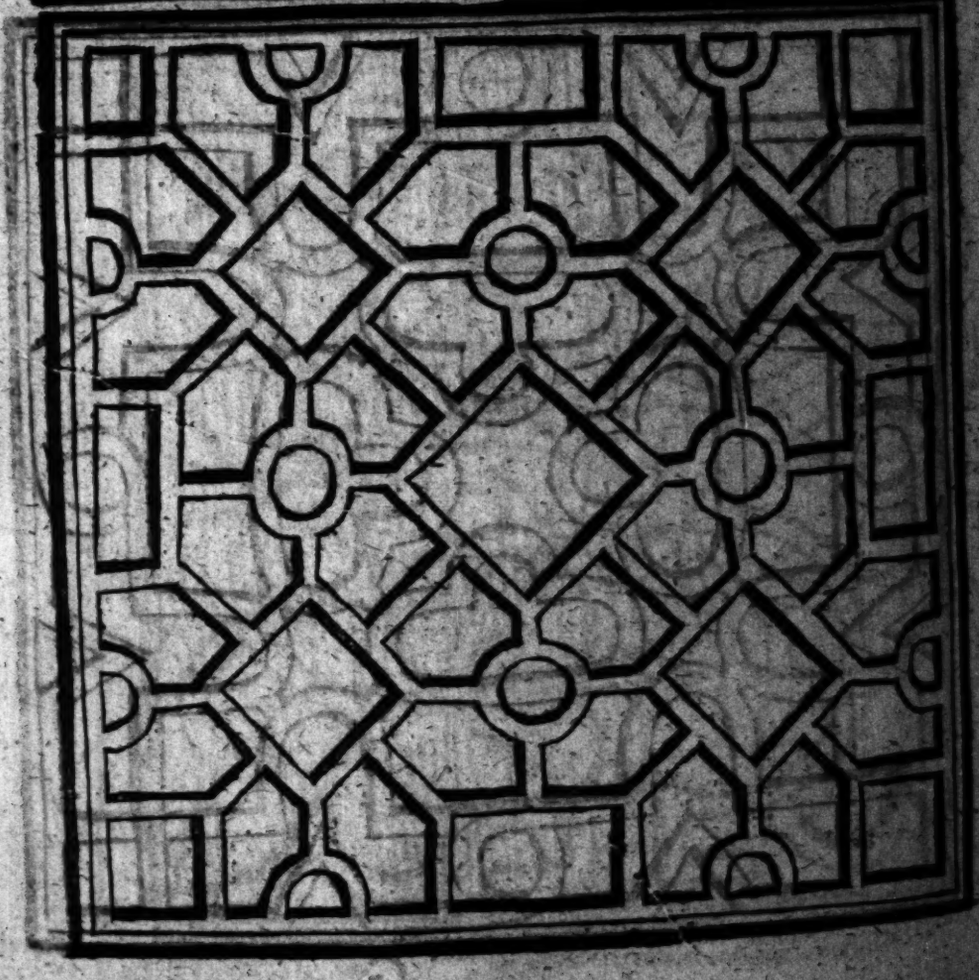
Cinkfoyle.

F ewre clere.

The tree-foile-

The Fret.

Lozengers.

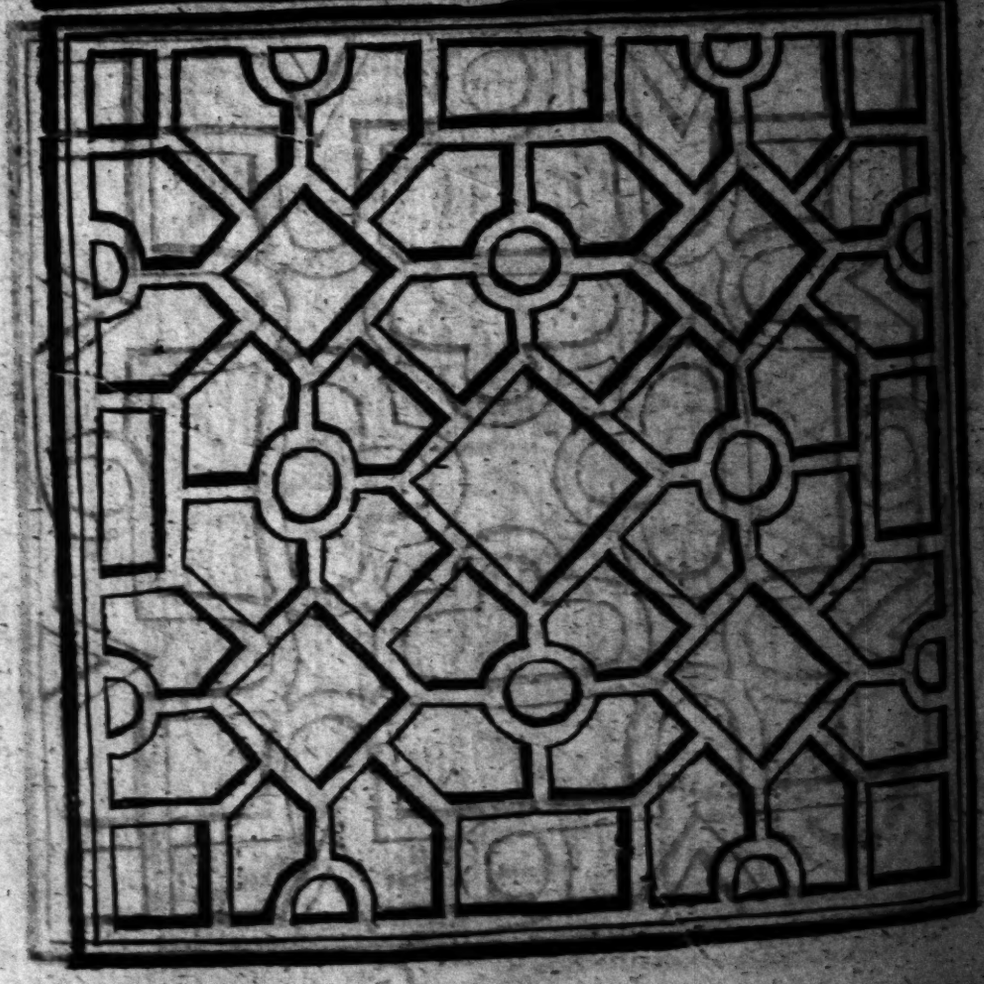


Crosse bow.

Diamond.

The Fret.

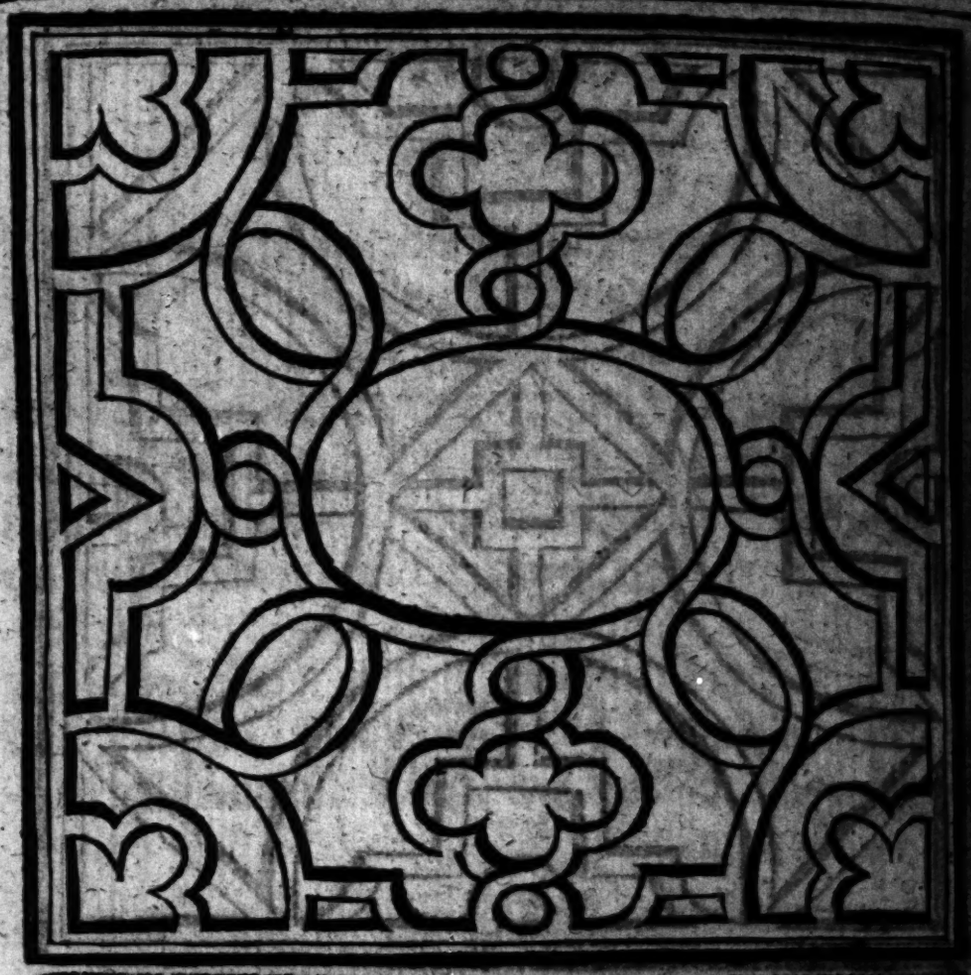
Lozengers.



Crosse bow.

Diamond.

● vall.



Maze.

Chap. IV.

Of the Quantity.

A Garden requireth not ſo large a ſcope of ground as an Orchard, both in regard of the much weeding, dreſſing and removing, and alſo the paines in a Garden is not ſo well repaied home, as in an Orchard. It is to be granted, that the Kitchin garden doth yeeld rich gaines by berries, roots, cabbages, &c. yet theſe are no way comparable to the fruits of a rich Orchard: but notwithſtanding I am of opinion, that it were better for *England*, that we had more Orchards and Gardens, and more large. And therefore wee leave the quantity to every mans ability and will.

Chap. V.

Of Fence.

Seeing wee allow Gardens in Orchard plots, and the benefit of a Garden is much, they both require a ſtrong and ſhrowding fence. Therefore leaving this, let us come to the herbs themſelves, which muſt bee the fruite of all theſe labours.

Chap. VI.

Of two Gardens.

Erbes are of two ſorts, and therefore it is meete (they requiring divers manners of Husbandry) that we have two Gardens: A garden for flowers, and a Kitchen garden: or a Summer garden: not that wee meane ſo perfect a diſtinction, that the Garden for flowers ſhould or can bee without herbs good for the Kitchin, or the Kitchin garden ſhould want flowers, nor on the contrary: but for the moſt part they would bee ſevered: firſt, becauſe your Garden flowers ſhall ſuffer ſome diſgrace, if among them you intermingle Onions, Parſnips, &c. Secondly, your Garden that is durable, muſt be of one forme: but that which is for your Kitchins uſe, muſt yeeld daily roots, or other herbes, and ſuffer deformity. Thirdly, the herbs of both will not be both alike ready, at one time, either for gathering, or removing. Firſt therefore.

Of the Summer Garden.

THeſe herbes and flowers are comely and durable for ſquares and knots, and all to be ſet at *Michaelide*, or ſomewhat before, that they may be ſetled in, and taken with the ground, before winter, though they may be ſet, eſpecially ſowne in the ſpring.

Roſes of all ſorts (ſpoken of in the Orchard) muſt be ſet. Some uſe to ſet ſlips and twine them, which ſometimes, but ſeldome thrive all.

Roſe-

Rosemary, Lavender, Bee-flowers, Isop, Sage, Time, Cowslips, Pyony, Dasies, Clove Gilliflowers, Pinckes, Sothernewood, Lillies, of all which hereafter.

Of the Kitchin Garden.

THough your Garden for flowers doth in a sort peculiarly challenge to it selfe a profit, and exquisite forme to the eyes, yet you may not altogether neglect this, where your herbs for the pot doe grow. And therefore, some here make comely borders with the herbes aforesaid. The rather because aboundance of Roses and Lavender yeeld much profit, and comfort to the senses: Rose-water and Lavender, the one cordiall (as also the Violets, Burrage, and Bugloss) the other reviving the spirits by the sence of smelling: both most durable for smell, both in flowers and water: you need not here raise your beds, as in the other garden, because Summer towards, will not let too much wet annoy you.

And these herbes require more moysture: yet must you have your beds divided, that you may goe betwixt to weede, and somewhat forme would be expected: To which it availeth, that you place your herbes of biggest growth, by walles, or in borders, as Fenell, &c. and the lowest in the middest, as Saffron, Strawberries, Onions, &c.

Chap. VII.

Division of Herbs.

GArden herbs are innumerable, yet these are common and sufficient for our country House-wifes.

Herbs of the greatest growth.

Fennell, Anglica, Tansie, Hollihock, Lovage, Elly Campane, French mallowes, Lillies, French poppy, Endive, Succory and Clary.

Herbs of middle growth.

Burrage, Buglas, Parsley, sweet Sicilly, Floure-delice, Stocke Gilliflowers, Wall-flowers, Annifeeds, Corlander, Fether fewell, Marigolds, Oculus Christi, Langdibeefe, Alexanders, Carduus benedictus.

Herbes of smallest growth.

Pansy, or Harts-ease, Coast Margeram, Savery, Strawberries, Saffron, Lycoras, Daffadownedillies, Leekes, Chives, Chibals, Skerots, Onions, Batchellors buttons, Daisies, Pennyroyall.

Hitherto I have onely reckoned up, and put in this rancke, some herbes. Their Husbandry follow each in an Alphabeticall order, the better to be found.

Chap. VIII.

Husbandry of Herbs.

ALexanders are to be renewed as *Angelica*. It is a timely pot-herbe.

Angelica is renued with his seed, wherof he beareth plenty the second yeere, & so dieth. You may remove the roots the first yeare. The leaves distilled

diſtilled, yeeld water ſoveraign to expel paine from the ſtomacke. The roote dryed taken in the fall, ſtoppeth the poares againſt infections.

Annyſeeds make their growth, and beareth ſeeds the firſt yeere, and dieth as *Coriander*: it is good for opening the pipes, and it is uſed in Comfits.

Artichokes are renued by dividing the rootes into ſets, in *March*, every third or fourth yeare. They require a ſeverall uſage, and therefore a ſeverall whole plot by themſelves, eſpecially conſidering they are plentifull of fruit much deſired.

Burrage and *Buglas*, two Cordials, renue themſelves by ſeed yearely, which is hard to be gathered: they are exceeding good Pot-hearbes, good for Bees, and moſt comfortable for the heart and ſtomacke, as Quinces and Wardens.

Camomile, ſet rootes in bankes and walkes. It is ſweet ſmelling, qualifying head-ach.

Cabbages require great roome, they ſeed the ſecond yeere: ſow them in *February*, remove them when the plants are an handfull long, ſet deepe and wet. Looke well in drought for the white Caterpillers worme, the ſpannes under the leafe cloſely: for every living Creature doth ſeeke food and quiet ſhelter, and growing quicke, they draw to, and eate the heart: you may find them in a rainy dewy morning.

It is a good Pot herbe, and of this herbe called *Cole*, our Country Houſe-wives give their pottage their name, and call them *Cael*.

Cardous Benedictus, or bleſſed thiſtle, ſeeds and dyes the firſt yeere, the excellent vertue thereof I referre to Herbals, for we are Gardiners, not Phyſitians.

Carrets are ſowne late in *April* or *May*, as Turneps, elſe

else they seed the first yeere, and then their rootes are naught: the second yeare they dye, their rootes grow great, and require large roome.

Chibals or *Chives* have their rootes parted, as Garlick, Lillies, &c. and so are they set every third or fourth yeere: a good pot herbe opening, but evill for the eyes.

Clarie is sowne, it seeds the second yeere, and dyes. It is somewhat harsh in taste, a little in pottage is good, it strengtheneth the reines.

Coast, Rootes parted make sets in *March*: it beares the second yeare: it is used in Ale in *May*.

Coriander is for usage and uses, much like Anni-seeds.

Daffadowne-dillies have their rootes parted, and set once in three or foure yeare, or longer time. They flower timely, and after *Midsummer*, are scarcely seene. They are more for ornament, then for use, so are Daisies.

Daisie-rootes parted and set, as Flowre-delice and Camomile, when you see them grow too thicke or decay. They bee good to keepe up, and strengthen the edges of your borders, as Pinkes, they bee red, white, mixt.

Ellycampane root is long lasting, as is the Lovage, it seeds yeerely, you may divide the root, and set the roote taken in Winter it is good (being dryed, powdered and drunke) to kill itches.

Endive and *Succory* are much like in nature, shape, and use, they renue themselues by seed, as Fennell, and other herbs. You may remove them before they put forth shankes, a good Pot-herbe.

Fennell is renued, either by the seeds (which is beareth the second yeere, and so yeerely in great abundance) sowne in the fall or Spring, or by dividing one root into so many Sets, as Artichoke, it is long of growth

and

and life. You may remove the root unshankt. It is exceeding good for the eyes, distilled, or any otherwise taken: it is used in dressing Hives for swarmes, a very good Pot herbe, or for sallets.

Fetherfewle shakes feed. Good against a shaking Fever, taken in a posset drinke fasting.

Flowre-delice, long lasting. Divide his roots, and set: the rootes dryed have a sweet smell.

Garlicke may bee set an handfull distance, two inches deepe, in the edge of your beds. Part the heads into severall cloves, and every clove set in the latter end of *February*, will increase to a great head before *September*: good for opening, evill for eyes: when the blade is long, fast two and two together, the heads will be bigger.

Hollyhocke riseth high, seedeth and dyeth: the chiefe use I know is ornament.

Isop is reasonable long lasting: young roots are good set, slips better. A good pot-herbe.

Iuly-flowres, commonly called *Gilly flowers*, or *Clowe-Iuly flowers* (I call them so, because they flowre in *Iuly*) they have the name of *Cloves*, of their sent. I may well call them the King of flowers (except the Rose) and the best sort of them are called *Queene-Iuly flowers*. I have of them nine or tenne severall colours, and divers of them as big as Roses: of all flowers (save the Damaske Rose) they are the most pleasant to sight and smell: they last not past three or foure yeares unremoved. Take the slips (without shanks) and set any time, save in extreme frost, but especially at *Michael-tide*. There use is much in ornament, and comforting the spirits, by the sence of smelling.

Iuly-flowers of the wall, or wall-*Iuly flowres*, wall-flowres, or Bee-flowres, or Winter-*Iuly-flowers*, because

cause growing in the walles, even in Winter, and good for Bees, will grow even in stone walles, they will seeme dead in Summer, and yet revive in winter. They yeeld seede plentifully, which you may sow at any time, or in any broken earth, especially on the top of a mud-wall, but moist, you may set the root, before it be branch, every slip that is not flowr'd will take root, or crop him in Summer, and he will flowre in winter: but his winter-seed is untimely. This and Palmes are exceeding good, and timely for Bees.

Leekes yeeld seed the second yeere, unremoved and die, unlesse you remove them, usuall to eate with sale and bread, as Onyons alwayes greene, good pot-herb, evill for the eyes.

Lavender Spike would be removed within 7 yeeres, or eight at the most. Slips twined as Isop and Sage, would take best at *Michaell-tide*. This flower is good for bees, most comfortable for smelling, except Roses: and kept dry, is as strong after a yeare, and when it is gathered. The water of this is comfortable.

White *Lavender* would be removed sooner.

Letice yeelds seede the first yeare, and dyes: sow betime, and if you would have them *Cabbage* for Sallets, remove them as you doe *Cabbage*. They are usuall in Sallets, and the pot.

Lillies white and red, removed once in three or foure yeeres, their roots yeeld many Sets, like the Garlicke. *Michael-tide* is the best: they grow high, after they get roote: these roots are good to breake a Byle, as are Mallowes and Sorrell.

Mallowes, French or gagged, the first or second yeere, seed plentifully: sow in *March* or before, they are good for the house-wifes pot; or to breake a bunch.

Marigold

Marigolds moſt commanly come of ſeed, you may remove the plants, when they be two inches long. The double Marigold, being as bigge as a little Roſe, is good for ſhew. They are a good Pot-herbe.

Oculus Chriſti, or Chriſts eye, ſeeds and dyes the firſt or ſecond yeere: you may remove the young Plants, but ſeed is better: one of theſe ſeeds put into the eye, within three or foure houres will gather a thicke skin, cleere the eye, and bolt it ſelfe forth without hurt to the eye. A good Pot-herbe.

Onyons are ſowne in *February*, they are gathered at *Michaeltide*, and all the Summer long, for Sallets; as alſo young Parſly, Sage, Chibals, Lettice, ſweet Sicilly, Fennell, &c. good alone, or with meate as mutton, &c. for ſauce, eſpecially for the pot.

Parſly, ſow the firſt yeere, and uſe the next yeere: it ſeedes plentifully, an herbe of much uſe, as ſweet Sicily is. The ſeed and roots are good againſt the Stone.

Parſneps require and whole plot, they bee plentifull and common: ſow them in *February*, the Kings (that is in the middle) ſeed broadeſt and reddeſt. Parſneps are ſuſtenance for a ſtrong ſtomacke, not good for evill eies. When they cover the earth in a drought, to tread the tops, makes the rootes bigger.

Penny-royall, or Pudding Graſſe, creepes along the ground, like ground Ivy. It laſts long, like Daiſies, becauſe it puts and ſpreads daily new roots. Divide and remove the roots, it hath a pleaſant taſte and ſmell, good for the pot, or hackt meate, or Haggas Pudding.

Pumpeons: Set ſeedes with your finger, a finger deepe, late in *March*, and ſo ſoone as they appeare, every night if you doubt froſt, cover them, and water them continually out of a water-pot: they bee very tender,

thier

their fruit is great and waterish.

French Poppy beareth a faire flower, and the seed will make you sleepe.

Raddish is sauce for cloyed stomacks, as Capers, Olives, and Cucumbers, cast the seeds all Summer long here and there, and you shall have them alwaies young and fresh.

Rosemary, the grace of herbs here in *England*, in other Countries common. To set slips immediately after *Lammas*, is the surest way. Seede sowne may prove well, so they bee sowne in hot weather, somewhat moist, and good earth: for the herbe, though great, is nesh and tender (as I take it) brought from hot Countries to us in the cold North: set thinne. It becomes a Window well. The use is much in meates, more in Physicke, most for Beer.

Rue, or Hearbe of Grace, continually greene, the slips are set. It lasts long as Rosemary, Sothernewood, &c. too strong for mine Housewifes pot, unlesse shee will brue Ale therewith, against the Plague: let him not seed, if you will have him last.

Saffron every third yeere his roots would be removed at *Midsummer*: for when all other herbs grow most, it dyeth. It flowreth at *Michael-tide*, and groweth all Winter: keepe his flowers from birds in the morning, and gather the yellow (or they shape much like Lillies) dry, and after dry them: they be precious, expelling diseases from the heart and stomacke.

Savery seeds and dies the first yeere, good for my Housewifes pot and pye.

Sage: set slips in *May*, and they grow aye: Let it not seed, it will last the longer. The use is much and common. The Monkish Proverbe is *tritum*:

Cur moriatur homo, cum salvia crescit in horto?

Skerets, the rootes are set when they be parted, as *Pa-*

nes,

owie, and Flower-deluce at *Michaelside*: the roote is but small and very sweet. I know none other speciall use but the Table.

Sweet *Sicily*, long lasting, pleasantly tasting, either the seed sowne, or the root parted, and removed, makes increase, it is of like use with Parsley.

Strawberries, long lasting, set roots at *Michael tide* or the Spring, they be red, white and green, and ripe, when they be great and soft, some by *Midsummer* with us. The use is: they will coole my Housewife well, if they be put in Wine or Creame with Sugar.

Time, both seeds, slips and rootes are good. If it seed not, it will last three or foure yeeres or more, it smelleth comfortably. It hath much use: namely, in all cold meats, it is good for Bees.

Turnep is sowne. In the second yeere they beare plenty of seed: they require the same time of sowing that Carrets doe: they are sicke of the same disease that Cabbages be. The root increaseth much, it is most wholesome, if it be sowne in a good and well tempered earth: Soveraigne for eyes and Bees.

I reckon these herbs only, because I teach my Country Housewife, not skilfull Artists, and it should be an endlesse labour, and would make the matter tedious to reckon up, *Landibeefe*, *Stocke-July flowres*, *Charwell*, *Valerian*, *Go-to bed at noone*, *Piony*, *Licorus*, *Tansie*, *Garden mints*, *Germander*, *Centaurie*, and a thousand such Physicke Herbs. Let her first grow cunning in this, and then she may enlarge her Garden as her skill and ability increaseth. And to helpe her the more, I have set her downe these observations.

CHAP.

Chap. IX.

Generall Rules in Gardening.

IN the South parts Gardening may bee more timely, and more safely done, then with us in Yorkeshire, because our ayre is not so favourable, nor our ground so good.

2 Secondly most seeds shakt, by turning the good earth, are renued, their mother the earth keeping them in her bowels, till the Sun their Father can reach them with his heat.

3 In setting herbs, leave no top more then an handfull above the ground, nor more then a foot under the earth.

4 Twine the rootes of those slips you set, if they will abide it. Gilly-flowers are too tender.

5 Set moist, and sow dry.

6 Set slips without shankes any time, except at Midsummer, and in frosts.

7 Seeding spoiles the most rootes, as drawing the heart and sap from the root.

8 Gather for the pot and medecines, herbs tender and Greene, the sap being in the top, but in Winter the root is best.

All the herbes in the Garden for flowers, would once in seven yeeres bee renued, or soundly watered with puddle water, except Rosemary.

10 In all your Gardens and Orchards, bankes and seates of Camomile, Penny-royall, Daisies and Violets, are seemely and comfortable.

11 These require whole plots: Artichokes, Cabbages, Turneps, Parsneps, Onyons, Carrets, (and if you will)

will) Saffron and Skerrits.

12 Gather all your seeds, dead, ripe, and dry.

13 Lay no dung to the roots of your hearbs, as usually they doe: for dung not melted is too hot, even for trees.

14 Thin setting and sowing (so the rootes stand not past a foot distance) is profitable, for the hearbs will like the better. Greater hearbs would haue more distance.

15 Set and sow hearbs in their time of growth (except at *Mid-summer*, for then they are too too tender) but trees in their time of rest.

16 A good Housewife may, and will gather store of hearbs for the pot, about *Lammas*, and dry them, and pownd them, and in Winter they will make good service.

Thus haue I lined out a Garden to our Countrey Housewives, and giuen them rules for common hearbs. If any of them (as sometimes they are) be knotty, I referre them to Chap. 3. The skill and paines of weeding the Garden with weeding knives of fingers, I refer to themselues, and their maides, willing them to take the opportunitie after a showre of raine: withall, I admonish the Mistresse, either be present her selfe, or to teach her maides to know hearbs from weeds. Weeding. A good note.

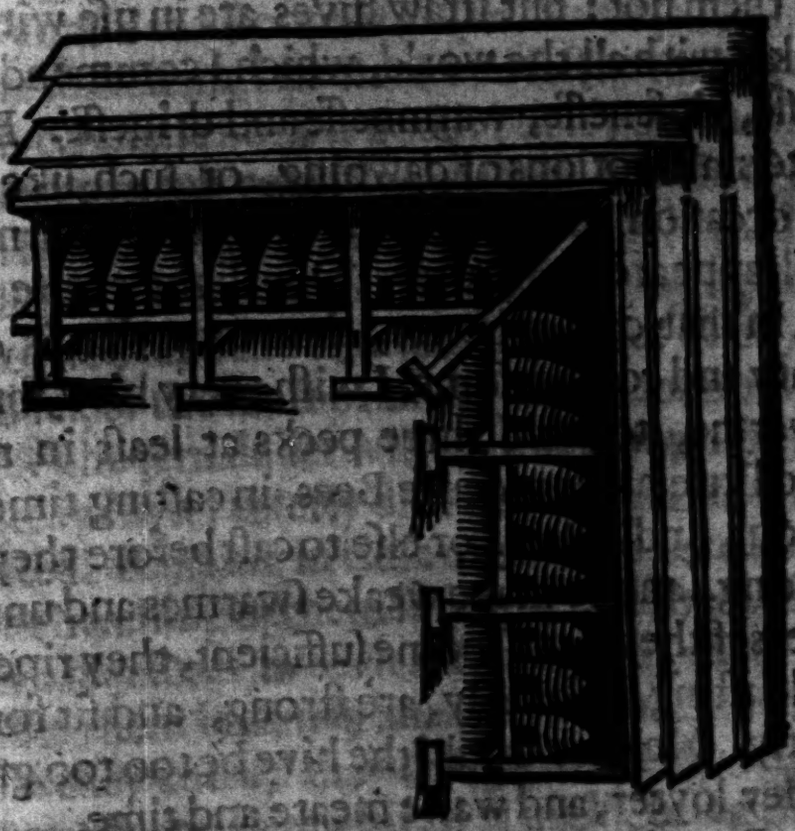
Chap. 10.

The Husbandry of Bees.

THere remaineth one necessary thing to be prescribed, which in mine opinion makes as much for ornament as either Flowers, or forme, or cleanlinesse, and I am sure as commodious as any of, or all the rest: which is Bees, well ordered. And I will not account her any of my good House-wives, that wanteth either Bees or skilfulnesse about them. And though I know some have written well and truely, and others more plentifully upon this theme: yet somewhat have I learned by experience (being a Bee-master my selfe) which hitherto I cannot find put into writing, for which I thinke our House-wives will count themselves beholding unto me.

Bee-house. The first thing that a Gardiner about Bees must bee carefull for, is an house not stakes and stones abroad, *Sub dio*: for stakes rot and reele, raine and weather eate your hives, and covers, and cold most of all is hurtfull for your Bees. Therefore you must have an house made along a sure dry wall in your Garden, neere, or in your Orchard: for Bees love flowers and wood with their hearts.

This is the forme; a Frame ſtanding on poſts with a Floore (if you would have it hold more Hives, two



Floores boorded) layd on bearers, and backe poſts, covered over with boords, ſlate-wiſe.

Let the floores be without holes or clifts, leſt in caſting time, the Bees lye out, and loyter.

And though your Hives ſtand within an hand-breadth the one of another: yet will Bees know their home.

In this Frame may your Bees ſtand drie and warme, eſpecially if you make dores like dores of windowes to ſhroud them in Winter, as in an houſe: provided you leave the Hives mouthes open. I my ſelfe

have deviſed ſuch an houſe, and I find that it keepes and ſtrengthens my Bees much, and my Hives will laſt five to one.

Hives. M. *Markham* commends hives of wood; I diſcommend them not: but ſtraw hives are in uſe with us, and I thinke, with all the world, which I commend for nimbleneſſe, cloſeneſſe, warmneſſe and drineſſe. Bees love no externall motions of dawbing, or ſuch like. Sometimes occaſion ſhall be offered to lift and turne Hives, as ſhall appeare heareafter. One light encke Hive of ſtraw, in that caſe is better, than one that is dawbed, weighty and comberſome. I wiſh every hive, for a keeping ſwarme, to hold three pecks at leaſt in meaſure. For too little hives procure Bees, in caſting time, either to lye out, and loyter, or elſe to caſt before they be ripe and ſtrong, and ſo make weake ſwarmes and untimely: Whereas if they have roome ſufficient, they ripen timely, and caſting ſeaſonably, are ſtrong, and fit for labour preſently. Neither would the hive be too too great, for then they loyter, and waſte meate and time.

Hiving of Bees. Your Bees delight in wood, for feeding, eſpecially for caſting: therefore want not an Orchard. A *Mayo* ſwarme is worth a Mares Foale: if they want wood, they be in danger of flying away. Any time before *Mid-ſummer* is good for caſting, and timely before *July* is not evill. I much like M. *Markhams* opinion for hiving a ſwarme in combes of a dead or forſaken hive, ſo they be freſh and cleanely. To thinke that a ſwarme of your owne, or others, will of it ſelfe come into ſuch an hive, is a meere conceit, *Experto crede Roberto*. His ſmearing with honey, is to no purpoſe, for the other Bees will eate it up. If your ſwarme knit in the top of a tree, as they will, if the wind beare them not to fall

downe

downe: let the ſtoole or ladder deſcribed in the Orchard, doe you ſervice.

The leſſe your Spelkes are, the leſſe is the waſte of your hony, and the more eaſily will they draw, when you take your Bees. Foure Spelks a thwart, and one top Spelke are ſufficient. The Bees will faſten their combes to the Hive. A little hony is good: but if you want, Fennell will ſerve to rub your hive withall. The hive being dreſt and ready ſpelkt, rubd and the whole made for their paſſage (I uſe no hole in the hive, but a piece of wood haol'd to ſave the hive and keepe out Mice) ſhake in your Bees, or the moſt of them (for al commonly you cannot get) the remainder will follow. Many uſe ſmoke, Netles, &c. which I utterly diſlike, for Bees love not to be moleſted. Ringing in time of caſting is a meere fancy, violent handling of them is ſimply evill, becauſe Bees of all other creatures, love cleanlineſſe and peace. Therfore handle them leaſurely and quietly, and their Keeper whom they know, may doe with them, what hee will without hurt: Being hived at night, bring them to their ſeat. Set your hives all of one yeere together. Spelkes.

Signes of breeding, if they be ſtrong.

1 They will avoid dead young Bees and Droanes.

2 They will ſweat in the morning, till it runne from them alwayes when they be ſtrong.

Signes of caſting.

1 They will fly Droanes, by reaſon of heat.

2 The young ſwarme will once or twice in ſome faire ſeaſon, come forth muſtering, as though they would caſt, to prove themſelves and goe in againe.

3 The night before they caſt, if you lay your eare to the Hives mouth, you ſhall heare two or three, but eſpe-

cially one above the reſt, cry, Vp, up, up; or, Four, four, four, like a trumpet, ſounding the alarm to the battell.

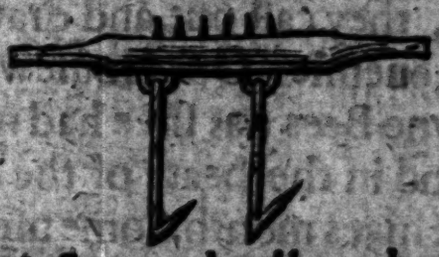
Much deſcanting there is, of, & about the Maſter-Bee, and their degrees, order and government: but the truth in this point is rather imagined, then demonſtrated. There are ſome conjectures of it, *viz.* we ſee in the combs divers greater houſes then the reſt, and we heare commonly the night before they caſt, ſometimes one Bee, ſometimes two or more Bees, give a loud and ſeverall ſound from the reſt; and ſometime Bees of greater bodies then the common ſort: but what of all this? I leane not on coniectures, but love to ſet downe that I know to be true, and leave theſe things to them that love to divine. Keepe none weake, for it is hazard, oftentimes with loſſe: feeding will not helpe them: for being weak, they cannot come down to meat, or if they come down, they dye, becauſe Bees weake cannot abide cold. If none of theſe, yet will the other Bees being ſtrong, ſmell the honey, and come and ſpoile and kill them. Some helpe is in caſting time, to put two weake ſwarmes together, or as M. *Markham* well ſaith: Let not them caſt late, by raiſing them with wood or ſtone: but with impes (ſay I.) An Impe is three or foure wreathes, wrought as the hive, the ſame compaſſe, to raſe the hive withall: but by experience in tryall, I have found out a better way by Cluſtering, for late or weak ſwarmes hitherto not found out of any that I know. That is this: After caſting time, if I have any ſtocke proud, and hindered from timely caſting, with former Winters poverty, or evill weather in caſting time, with two handles and crookes, fitted for the purpoſe, I turne up that ſtock ſo peſtered with Bees, and ſet it on the crowne, upon which ſo turned with the mouth upward, I place another empty hive well dreſt,

Catching.

Cluſtering.

dreſt, and ſpelkt, into which without any labour, the Swarme that would not depart, and caſt, will preſently aſcend, becauſe the old Bees have this quality (as all other breeding creatures have) to expell the young when they have brought them up.

There will the ſwarme build as kindly, as if they had of themſelves beene caſt. But be ſure you lay betwixt the hives ſome ſtraight and cleanly ſtick or ſtickes, or rather a board with holes, to keepe them aſunder: otherwiſe they will ioyne their workes together ſo faſt, that they cannot be parted. If you ſo keepe them aſunder at *Michael-tide*, if you like the waight of your ſwarme (for the goodneſſe of ſwarmes is tryed by waight) ſo catched, you may ſet it by for a ſtock to keepe. Take heed in any caſe the combes bee not broken, for then the other Bees will ſmell the hony, and ſpoyle them. This have I tryed to be very profitable for the ſaving of Bees. The inſtrument hath this forme. The great ſtraight piece is wood,



the reſt are iron claſpes and nailes, the claſpes are looſe in the Stapes: Two men with two of theſe faſtened to the hive, will eaſily turne it up.

They gather not till *July*; for then they are diſcharged of their young, or elſe they are become now ſtrong to labour, and now ſap in flowers is ſtrong and proud: by reaſon of time, and force of Sunne. And now alſo in the North (and not before) the hearbs of greateſt vigour put their Flowers; as Beanes, Fennel, Burrage, Rape, &c.

The moſt ſenſible weather for them, is heat & drought be-

becauſe the neſh Bee can neither abide cold or wet: and ſhowres (which they wel fore-ſee (do interrupt their labours unleſſe they fall on the night, and ſo they further them.

Droanes. After caſting time, you ſhall benefit your ſtocks much, if you helpe them to kill their Droanes, which by all probability and iudgement, are an idle kinde of Bees, and waſtfull. Some ſay they breed and have ſeene young Droanes in taking their hony, which I know is true. But I am of opinion, that there are alſo Bees which have loſt their ſtings, and ſo being, as it were gelded, become idle and great. There is great uſe of them: *Deus, & natura nihil fecit fruſtrà.* They hate the Bees, and cauſe them caſt the ſooner. They never come forth but when they be over heated. They never come home loaden. After caſting time, and when the Bees want meate, you ſhall ſee the labouring Bees faſten on them, two, or three, or four at once, as if they were theeves to be led to the gallowes, and killing them, they caſt out, and draw them far from home, as hatefull enemies. Our Houſewife, if ſhe be the Keeper of her owne Bees (as ſhee had need to bee) may with her bare hand in the heate of the day, ſafely deſtroy them in the hives mouth. Some uſe towards night, in a hot day, to ſet before the mouth of the hive a thin board, with little holes, in at which the leſſer Bees may enter but not the Droanes, ſo that you may kill them at your pleaſure.

Annoyances. Snayles ſpoyle them by night like theeves: they come ſo quietly, and are ſo faſt, that the Bees feare them not. Looke early and late, eſpecially in a rainy or dewey evening or morning.

Mice are no leſſe hurtfull, and the rather to hives of ſtraw; and therfore coverings of ſtraw draw them. They will

will in either at the mouth, or sheer themselves an hole. The remedy is good Cats, Rats-bane and watching.

The cleanly Bee hateth the smoke as poyson, therefore let your Bees stand neerer your garden then your Brew-house or Kitchen.

They say Sparrowes and Swallowes are enemies to Bees, but *I* see it not.

More hives perish by Winters cold, then by all other hurts: for the Bee is tender and nice, and onely lives in warme weather, and dyes in cold; And therefore let my Housewife be perswaded, that a warme dry house before described, is the chiefest helpe shee can make her Bees against this, and many more mischiefes. Many use against cold in Winter, to stop up their hive close, and some set them in houses, perswading themselves, that therby they relieve their Bees. First, tossing and moving is hurtfull. Secondly, in houses, going, knocking, and shaking is noysome. Thirdly, too much heat in an house is unnaturall for them: but lastly, and especially, Bees cannot abide to bee stopt close up. For at every warme season of the Sunne they revive, and living eate, and eating must needes purge abroad, (in her house) the cleanly Bee will not purge her selfe. *I*udge you what it is for any living creature, not to disburden nature. Being shut up in calme seasons, lay your eare to the Hive, and you shall heare them yarme and yell, as so many hungred prisoners. Therefore impound not your Bees, so profitable and free a creature.

Let none stand above three yeares, else the combes will be blacke and knotty, your honey will bee thinne and uncleanely: and if any cast after three yeares, it is such as have swarmes, and old Bees kept altogether, which is great losse. Smoaking with ragges, rozen, or brim- Taking of bees

ſtone, many uſe: ſome uſe drowning in a tub of cleane water, and the water well brewd, will be good borchet. Draw out your ſpelkes immediately with a paire of pinchers, leſt the wood grow ſoft and ſwell, and ſo will not be drawne, then muſt you cut your Hive.

Straining Honey.

Let no fire come neere your hony, for fire ſofteneth the wax and droſſe, and makes them runne with the hony. Fire ſoftneth, weakneth, and hindreth hony for purging. Breake your combes ſmall (when the dead empty combes are parted from the loaden combes into a five, borne over a great bowle, or veſſell, with two ſtaves, and ſo let it runne two or three dayes. The ſooner you run it up, the better will it purge. Runne your ſwarme hony by it ſelfe, and that ſhall be your beſt. The elder your hives are, the worſe is your hony.

Veſſels.

Vſuall veſſels are of clay, but after wood bee ſatiated with honey (for it will leake at firſt: for honey is marvellouſly ſearching, the thicke, and therefore vertuous) I uſe it rather, becauſe it will not breake ſo ſoone, with fals, froſts, or otherwiſe, and greater veſſels of clay will hardly laſt.

When you uſe your honey, with a ſpoone take off the skin which it hath put up.

And it is worth the regard, that bees thus uſed, if you have but forty ſtocks, ſhall yeeld you more commodity cleerely than forty acres of ground. And thus much may ſuffice, to make good Houſewives love and have good Gardens and Bees.

Laus Deo.

FINIS.

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A MOST PROFITABLE New Treatise, from approved experience of the Art of propagating Plants;

By SIMON HARVVARD.

CHAP. I.

The Art of propagating Plants.

THere are foure sorts of planting or propagating, as in laying of shootes or little branches, whiles they are yet tender, in some pit made at their foote, as shall be said hereafter, or upon a little Ladder or Basket of earth, tied to the bottome of the branch, or in boaring a Willow thorow, and putting the branch of the tree into the hole, as shall be fully declared in the Chapter of grafting. 1.

There are likewise seasons to propagate in; but the best is in the Spring, and *March*, when the trees are in the Flower, and doe begin to grow lusty. The young

planted

planted Siens or little Grafts, muſt be propagated in the beginning of Winter, a foote deepe in the earth, and good manure mingled amongſt the earth, which you ſhall caſt forth of the pit, wherein you meane to propagate it, to tumble it in upon it againe. In like manner, your ſuperfluous Siens, or little Plants muſt be cut cloſe by the earth, when as they grow about ſome ſmall Impe, which wee meane to propagate, for they would doe nothing but rot: For to propagate, you muſt digge the earth round about the tree, that ſo your rootes may be laid in a manner halfe bare. Afterward draw into length the pit on that ſide where you meane to propagate, and according as you perceive that the roots will be beſt able to yeeld, and be governed in the ſame pit, 2. to uſe them, and that with all gentleneſſe, and ſtop cloſe your Siens, in ſuch ſort, as that the wreath which is in the place where it is grafted, may be a little lower than the Siens of the new Wood, growing out of the earth, even ſo high as it poſſible may be. If the trees that you would propagate be ſomewhat thicke, and thereby the harder to ply, and ſomewhat ſtiffe to lay in the pit: then you may wet the ſtocke almoſt to the midſt, betwixt the roote and the wreathing place, and ſo with gentle handling of it, bow downe into the pit the wood which the grafts have put forth, and that in as rounda compaſſe as you can, keeping you from breaking of it: afterward lay over the cut, with gummed Waxe, or with gravell and ſand.

CHAP.

Chap. 2.

Grafting in the Barke.

GRafting in the Barke, is used from mid-*August*, to the beginning of Winter, and also when the Westerne-winde beginneth to blow, being from the 7. of *February*, unto the 11. of *June*. But there must care be had, not to graffe in the barke in any rainy season, because it would wash away the matter of joyning the one and the other together, and so hinder it.

Grafting in the budde, is used in the Summer time, from the end of *May*, untill *August*, as being the time when the trees are strong and lusty, and full of sap and leaves. To wit, in a hot Countrey, from the midst of *June*, unto the midst of *July*: but in cold Countries, to the midst of *August*, after some small showers of Raine. 3.

If the Summer be so exceeding dry, as that some trees doe withhold their sap, you must waite the time till it doe returne.

Graft from the full of the Moone, untill the end of the old.

You may graft in a Cleft, without having regard to the Raine, for the sap will keepe it off.

You may graft from mid-*August*, to the beginning of *November*: Cowes dung with straw doth mightily preserve the graft.

It is better to graft in the evening, than the morning.

The furniture and tooles of a Grafter, are a Basket to lay his grafts in, Clay, Gravell, Sand, or strong Earth, to draw over the plants cloven: Mosse, Woollen

Woollen clothes, barkes of Willow to joyne to the late things and earth before ſpoken, and to keepe them faſt: Oziers to tye againe upon the barke, to keepe them firme and faſt: gummed Wax, to dreſſe and cover the ends and tops of the grafts newly cut, that ſo the raine and cold may not hurt them, neither yet the ſap riſing from below, bee conſtrained to returne againe unto the ſhootes. A little Sawe or hand-Sawe, to ſawe off the ſtocke of the plants, a little Knife or Pen-knife to graffe, and to cut and ſharpen the grafts, that ſo the barke may not pill nor be broken; which often commeth to paſſe when the graft is full of ſap. You ſhall cut the graffe ſo long, as that it may fill the cliffe of the plant, and therewithall it muſt be left thicker on the barke-ſide, that ſo it may fill up both the cliffe and other inciſions, as any need is to be made, which muſt be alwaies well ground, well burniſhed without all ruſt. Two wedges, the one broad for thicke trees, the other narrow for leſſe and tender trees, both of them of box, or ſome other hard and ſmooth wood, or ſteele, or of very hard iron, that ſo they may need leſſe labour in making them ſharpe.

A little hand-Bill to ſet the plants at more liberty, by cutting off ſuperfluous boughs, helu'd of Ivory, Boxe, or Braſill.

CHAP. III.

Grafting in the cleft.

THe manner of grafting in a cleft, to wit, the ſtocke being clov'd, is proper not only to trees, which are as great as a mans legs or armes, but alſo to greater. It is true that being trees cannot eaſily bee cloven in their ſtocke, that therefore it is expedient to make inciſion in ſome one of their branches, and not in the maine body, as wee ſee to bee practiſed in great Apple-trees, and great Peare-trees, and as we have already declared heretofore.

To graft in the cleft, you muſt make choyſe of a graft that is full of ſap and iuyce; but it muſt not bee, but till from after *Ianuary* untill *March*: And you muſt not thus graft in any tree that is already budded, becauſe a great part of the iuyce and ſap would bee already mounted up on high, and riſen to the top, and there diſperſed and ſcattered hither and thither, into every ſprig and twig, and uſe nothing welcome to the graft.

You muſt likewiſe bee reſolved not to gather your graft the day you graft in, but tenne or twelve dayes before: for otherwiſe, if you graft it new gathered, it will not bee able eaſily to incorporate it ſelfe with the body and ſtocke, where it ſhall be grafted; becauſe that ſome part of it will dry, and by this meanes will bee a hinderance in the ſtocke to the riſing up of the ſap, which it ſhould communicate unto the graft, for the making of it to put forth, and whereas this dryed part will fall a crumbling, and breaking thorow his rottenneſſe, it will cauſe to remaine a concavity, or hollow place in the ſtock, which will be an occaſion of a like inconvenience

to befall the graft. Moreover, the graft being new and tender, might easily be hurt of the bands, which are of necessity to be tyed about the Stocke, to keepe the graft firme and fast. And you must further see, that your Plant was not of late removed, but that it have already fully taken root.

When you are minded to graft many grafts into one cleft, you must see that they be cut in the end all alike.

See that the grafts be of one length, or not much differing, and it is enough, that they have three or foure eylets without the wrench: when the Plant is once sawed, and lopped of all his small Siens and shootes round about, as also implyed of all his branches, if it have many: then you must leave but two at the most, before you come to the cleaving of it: then put to your little Saw, or your knife, or other edged toole that is very sharpe, cleave it quite thorow the middest, in gentle and soft sort: First, tying the Stocke very sure, that so it may not cleave further then is need: and then put to your Wedges into the cleft untill such time as you have set in your grafts, and in cleaving of it, hould the knife with the one hand, and the tree with the other, to helpe to keepe it from cleaving too farre. Afterwards put in your wedge of Bone or Brazill, or bone at the small end, that so you may the better take it out againe, when you have set in your grafts.

If the Stocke be cloven, or the Barke loosed too much from the wood: then cleave it downe lower, and set your grafts in, and looke that their incision bee fit, and very iustly answerable to the cleft, and that the two saps, first, of the Plant and graft, be right and even set one against the other, and so handsomely fitted, as that

that there may not be the least appearance of any cut or cleft. For if they doe not thus iumpe one with another, they will never take one with another, because they cannot worke their inseeming matter, and as it were cartilaguous glue in convenient for nor manner, to the gluing of their ioynts together. You must likewise beware, not to make your cleft overthwart the pith, but somewhat aside.

The barke of your Plant being thicker then that of your Graft, you must set the graft so much the more outwardly in the cleft, that so the two saps may in any case be ioyned, and set right the one with the other, but the rinde of the plant must be somewhat more out, then that of the grafts on the cloven side.

To the end that you may not faile of this worke of imping, you must principally take heed, not to over-cleave the Stockes of your Trees. But before you widen the cleft of your wedges, binde, and goe about the Stocke with two or three turnes, and that with an Ozier, close drawne together, underneath the same place, where you would have your cleft to end, that so your Stocke cleave not too farre, which is a very usuall cause of the miscarrying of grafts, in asmuch as hereby the cleft standeth so wide and open, as that it cannot be shut, and so not grow together againe; but in the meane time spendeth it selfe, and breatheth out all his life in that place, which is the cause that the Stocke and the Graft are both split. And this falleth out most often in Plum-trees, & branches of trees. You must be careful so to ioyne the rinds of your grafts, and Plants, that nothing may continue open, to the end that the wind, moisture of the clay or rain, running upon the grafted place, do not get in: when the plant cleveth very

straight; there is not any danger nor hardnesse in lo-
ping downe the Graft. If you leave it somewhat nee-
ven, or rough in some places, so that the saps both of
the one and of the other may the better grow, and be
glued together; when your grafts are once well joyned
to your Plants, draw out your wedges very softly, lest
you displace them againe, you may leave there within
the cleft some small end of a wedge of greene wood, cut-
ting it very close with the head of the Stocke: Some
cast give into the cleft, some sugar, and some gummed
Wax.

If the Stocke of the Plant whereupon you intend to
graft, bee not so thicke as your graft, you shall graft it
after the fashion of a Goats foot, make a cleft in the
Stocke of the Plant, not direct, but byas, and that smooth
and even, not rough: then apply and make fast there-
to, the graft with all his Barke on, and answering to the
barke of the Plant. This being done, cover the place
with the fat earth and mosse of the Woods tyed toge-
ther with a strong band; sticke a pole of Wood by it, to
keepe it stedfast.

Chap. IV.

Grafting like a Scutcheon.

IN grafting after the manner of a Scu-
cheon, you shall not vary not differ
much from that of the Flute or Pipe,
save only that the Scutcheon-like graft
having one eye-let, as the other hath
two, the wood of the tree whereupon
the Scutcheon-like graft is grafted, hath not any bud
or budde, as the wood whereupon the graft is graf-
ted,

ted, after the manner of a pipe.

12. In Summer when the trees are well repleniſhed with ſap, and that their new Siens beginne to grow ſomewhat hard, you ſhall take a ſhoote at the end of the chiefe branches of ſome noble and reclaimed tree, whereof you would faine have ſome fruite, and not many of his old ſtore or wood, and from thence raiſe a good eylet, the taile and all thereof to make your graft. But when you chooſe, take the thickeſt, and groſſeſt, divide the tayle in the middeſt, before you doe any thing elſe, caſting away the leafe (if it be not a Peare plum-tree: for that would have two or three leaves) without removing any more of the ſaid tayle: afterward with the point of a ſharpe knife, cut off the Barke of the ſaid ſhoote, the patterne of a ſhield, of the length of a nayle.

13. In which there is onely one eylet higher then the middeſt together, with the reſidue of the tayle which you left behinde: and for the lifting up of the ſaid graft in Scutcheon, after that you have cut the barke of the ſhoote round about, without cutting of the wood within, you muſt take it gently with your thumbe, and in putting it away, you muſt preſſe upon the wood from which you pull it, that ſo you may bring the bud and all away together with the Scutcheon: for if you leave it behinde with the wood, then were the Scutcheon nothing worth. You ſhall finde out if the Scutcheon be nothing worth, if looking within when it is pulled away from the wood of the ſame ſute, you finde it to have a hole within, but more manifeſtly, if the bud doe ſtay behinde in the Wood, which ought to have beene in the Scutcheon.

Thus your Scutcheon being well raiſed and taken off

14. off, hold it a little by the taile betwixt your lips, without wetting of it, even untill you have cut the Barke of the tree where you would graft it, and looke that it be cut without wounding of the wood within, after the manner of a crutch, but somewhat longer then the Scutcheon that you have to set in it, and in no place cutting the wood within; after you have made incision, you must open it, and make it gape wide on both sides, but in all manner of gentle handling, and that with little Sizers of bone, and separating the wood and the barke a little within; even so much as your Scutcheon is in length and breadth: you must take heede that in doing hereof, you doe not hurt the barke.

15. This done take your Scutcheon by the end, and your tayle which you have left remaining, and put into your incision made in your tree, lifting up softly your two sides of the incision with your said Sizers of bone, and cause the said Scutcheon to joyne, and lye as close as may be, with the wood of the tree, being cut, as aforesaid, in waighing a little upon the end of your rinde: so cut and let the upper part of your Scutcheon lye close unto the upper end of your incision, or barke of your said tree: afterward binde your Scutcheon about with a band of Hempe, as thicke as a pen of a quill, more or lesse, according as your tree is small or great, taking the same Hempe in the middest, to the end that either part of it may performe a like service; and wreathing and binding of the said Scutcheon into the incision of a tree, and it must not be tyed too strait, for that would keepe it from making the joyning of the one sap to the other, being hindred thereby, and neither the Scutcheon, nor yet the Hempe must bee moist or wet: and the more justly to binde them together, begin at the back side of the Tree, right

right over against the middeſt of the inciſion, and from thence come forward to joyne them before, above the eylet and tayle of the Scutcheon, croſſing your band of Hempe, ſo oft as the two ends meet, and from thence returning backe againe, come about and tye it likewiſe underneath the eylets: and thus caſt about your band ſtill backeward and forward, untill the whole cleft of the inciſion be covered above and below with the ſaid Hempe, the eylet onely excepted, and his tayle which muſt not bee covered at all; his tayle will fall away one part after another, and that ſhortly after the ingrafting, if ſo bee the ſcutcheon will take. Leave your trees and Scutcheons thus bound, for the ſpace of one month, and the thicker, a great deale longer time. Afterward looke them over, and if you perceive them to grow together untye them, or at the leaſt wiſe cut the Hempe behinde them, and leave them uncovered. Cut alſo your branch two or three fingers above that, ſo the Impe may proſper the better: and thus let them remaine till after Winter, about the month of *March*, and *Aprill*. 17.

If you perceive that your budde of your ſcutcheon doe ſwell and come forward, then cut off the tree three fingers or thereabouts, above the Scutcheon: for if it bee cut off too neere the Scutcheon, at ſuch time as it putteth forth his firſt bloſſome, it would bee a meanes greatly to hinder the flowring of it, and cauſe alſo that it ſhould not thrive and proſper ſo wel after that one yeere is paſt, and that the ſhoote beginneth to be ſtrong: beginning to put forth the ſecond bud and bloſſome, you muſt goe forward to cut off in by-as wiſe the three fingers in the top of the tree, which you left there, when you cut it in the yeere going before, as hath beene ſaid. 18.

When your ſhoote ſhall have put forth a great deale
19. of length, you muſt ſticke downe there, even hard joyned thereunto, little ſtakes, tying them together very gently and eaſily; and theſe ſhall ſtay your ſhootes and prop them up, letting the winde from doing any harme unto them. Thus you may graft white Roſes in red, and red in white. Thus you may graft two or three Scutcheons: provided that they be all of one ſide: for they will not bee ſet equally together in height, becauſe then they would be all ſtarvelings, neither would they be directly
20. one over another; for the lower would ſtay the riſing up of the ſap of the tree, and ſo thoſe above ſhould conſume in penury, and undergoe the aforeſaid inconvenience. You muſt note, that the Scutcheon which is gathered from the Sien of a tree whoſe fruit is ſoure, muſt bee cut in ſquare forme, and not in the plaine faſhion of a Scutcheon. It is ordinary to graffe the ſweet Quince tree, baſtard Peach-tree, Apricocke-tree, Iuinbe-tree, ſowre Cherry-tree, ſweet Cherry-tree, and Cheſnut-tree, after this faſhion, howbeit they might be grafted in the cleft more eaſily, and more profitably; although divers be of contrary opinion, as thus beſt: Take the grafts of ſweet Quince-tree, and baſtard Peach-tree, of the faireſt wood, and beſt fed that you can finde growing upon the wood of two yeeres old, becauſe the wood is
21. not ſo firme nor ſolid as the others: and you ſhall graffe them upon ſmall Plum-tree ſtockes, being of the thickeneſſe of ones thumbe; theſe you ſhall cut after the faſhion of a Goates foot: you ſhall not goe about to make the cleft of any more ſides then one, being about a foot high from the ground; you muſt open it with your ſmall wedge: and being thus grafted, it will ſeeme to you that it is open but of one ſide; afterward you ſhall wrap it up

with

with a little Moſſe, putting thereto ſome gummed Waxe, or clay, and binde it up with Oziers, to keep it ſurer, becauſe the ſtocke is not ſtrong enough it ſelfe to hold it, and you ſhall furniſh it every manner of way, as others are dealt withall: this is moſt profitable.

The Time of Grafting.

All moneths are good to graft in, (the moneth of *October* and *November* onely excepted.) But commonly, graft at that time of the Winter, when ſap beginneth to ariſe.

In a cold Countrey graft later, and in a warme Country earlyer.

The beſt time generally is from the firſt of *February* untill the firſt of *May*.

The grafts muſt alwayes be gathered, in the old of the Moone.

For grafts chooſe ſhootes of a yeare old, or at the furthermoſt two yeeres old.

If you muſt carry grafts farre, pricke them into a Turnep newly gathered, or lay earth about the ends.

If you ſet ſtones of Plummes, Almonds, Nuts, or Peaches: Firſt let them lye a little in the Sunne, and then ſteepe them in Milke or Water, three or foure dayes before you put them into the earth.

Dry the kernels of Pippins, and ſow them in the end of *November*.

The ſtone of a Plum-tree muſt bee ſet a foot deepe in *November*, or *February*.

The Date-ſtone muſt bee ſet the great end downe-

wards

wards, two cubits deepe in the earth, in a place inriched with dung.

The Peach-stone would bee set presently after the Fruit is eaten, some quantity of the flesh of the Peach remayning about the stone.

If you will have it to be excellent, graft it afterward upon an Almond tree.

The little Siens of Cherry-trees, growne thick with haire, rots, and those also which doe grow up from the rootes of the great Cherry-trees, being removed, doe grow better and sooner then they which come of stones: but they must bee removed and planted while they are but two or three yeres old, the branches must be lopped.

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To make Fruit smell well.
To plant Cherry-trees.

THE HVSBAND MANS FRVITFVLL ORCHARD.

For the true ordering of all sorts of Fruites in their due seasons: and how double increase commeth by care in gathering yeare after yeare: as also the best way of carriage by land or by water, with their preservation for longest continuance.

OF all stone Fruit, Cherries are the first to be gathered: of which, though we reckon foure sorts; *English*, *Flemish*, *Gascoyne* and Blacke, yet are they reduced to two, the early, and the ordinary: the early are those whose grafts came first from *France* and *Flanders*, and are now ripe with us in *May*: the ordinary is our owne naturall Cherry, and is not ripe before *June*, they must be carefully kept from Birds, either with nets, Cherries.

ners, noise, or other industry.

Gathering of Cherries.

They are not all ripe at once, nor may be gathered at once, therefore with a light Ladder, made to stand of it selfe, without hurting the boughes, mount to the tree, and with a gathering hooke, gather those which be full ripe, and put them into your Cherry-pot, or Kybzey hanging by your side, or upon any bough you please, and be sure to breake no stalke, but that the cherry hanges by; and pull them gently, lay them downe tenderly, and handle them as little as you can.

To carry Cherries.

For the conveyance or portage of Cherries, they are best to be carried in broad Baskets like fives, with smooth yeelding bottomes, only two broad laths going along the bottome: and if you doe transport them by ship, or boat, let not the fives be filled to the top, lest setting one upon another, you bruise and hurt the Cherries: if you carry by horse-backe, then panniers well lined with Fearne, and packt full and close is the best and safest way.

Other stone-fruit.

Now for the gathering of all other stone-fruit, as Nertarines, Apricockes, Peaches, Peare-plumbes, Damsons, Bullas, and such like, although in their several kinds, they seem not to be ripe at once on one tree: yet when any is ready to drop from the tree, though the other seeme hard, yet they may also be gathered, for they have received the full substance the tree can give them; and therefore the day being faire, and the dew drawne away; set up your Ladder, and as you gathered your Cherries, so gather them: onely in the botomes of your large fives, where you part them, you shall lay Nettles, and likewise in the top, for that will ripen those that are most unready.

In gathering of Peares are three things observed:

to gather for expence, for transportation, or to sell to the Apothecary. If for expence, and your owne use, then gather them as soone as they change, and are as it were halfe ripe, and no more but those which are changed, letting the rest hang till they change also: for thus they will ripen kindly, and not rot so soone, as if they were full ripe at the gathering. But if your Peares be to be transported farre either by Land or Water, then pull one from the tree, and cut it in the middest, and if you finde it hollow about the choare, and the kernell a large space to lye in: although no Peare be ready to drop from the tree, yet then they may bee gathered, and then laying them on a heape one upon another, as of necessity they must be for transportation, they will ripen of themselves, and eat kindly: but gathered before, they will wither, shrinke and eate rough, losing not onely their tast, but beauty. Gathering of Peares.

Now for the manner of gathering; albeit some climb into the trees by the boughes, and some by Ladder, yet both is amisse: the best way is with the Ladder before spoken of, which standeth of it selfe, with a basket and a line, which being full, you must gently let downe, & keeping the string still in your hand, being emptied, draw it up againe, and so finish your labour, without troubling your selfe, or hurting the tree.

Now touching the gathering of Apples, it is to be done according to the ripening of the fruit; your Summer apples first, and the Winter after. Gathering of Apples.

For Summer fruit, when it is ripe, some will drop from the tree, and birds will be picking at them: But if you cut one of the greenest, and finde it as was

shew'd

shew'd you before of the Peare: then you may gether them, and in the house they will come to their ripenesse and perfection. For your Winter fruit, you shall know the ripenesse by the observation before shewed; but it must be gathered in a faire, Sunny, and dry day, in the waine of the Moone, and no Wind in the East, also after the deaw is gone away: for the least wet or moysture will make them subiect to rot and mildew: also you must have an apron to gather in, and to empty into the great baskers, and a hooke to draw the boughes unto you, which you cannot reach with your hands at ease: the apron is to be an Ell every way, loopt up to your girdle, so as it may serve for either hand without any trouble: and when it is full, unloose one of your loopes, and empty it gently into the great basket; for in throwing them downe roughly, their owne stalkes may pricke them; and those which are prickt, will ever rot. Againe, you must gather your fruit cleane without leaves or brunt, because the one hurts the tree, for every brunt would be a stalke for fruit to grow upon: the other hurts the fruit by bruising, and pricking it as it is layd together, and there is nothing sooner rotteth fruit, then the greene and withered leaves lying amongst them; neither must you gather them with ur any stalke at all; for such fruit will begin to rot where the stalke stood.

To use the fallings.

For such fruit as falleth from the trees, and are not gathered, they must not be layd with the gathered fruit: and of fallings there are two sorts; one that falls through ripenesse, and they are best, and may be kept to bake or roast: the other windfalls, and before they are ripe; and they must be spent as they are gathered, or else they will wither and come to nothing: and there-

therefore it is not good by any meanes to beate downe fruit with Poales, or to carry them in carts loose and jogging, or in sacks where they may be bruised.

Carriage of fruit.

When your fruit is gathered, you shall lay them in deepe Baskets of Wicker, which shall containe foure or sixe bushels, and so betweene two men, carry them to your Apple-Loft, and in shooting or laying them down, be very carefull that it be done with all gentlenesse, and leasure, laying every sort of fruit severall by it selfe: but if there be want of roome, having so many sorts that you cannot lay them severally, then such some fruit as is neerest in taste and colour, and of Winter fruit, such as will taste alike may if neede require, be laide together, and in time you may separate them, as shall be shewed hereafter. But if your fruit be gathered far from your Apple-Loft, then must the bottomes of your Baskets be lined with greene Ferne, and draw the stubborne ends of the same through the Basket, that none but the soft leafe may touch the fruit, and likewise cover the tops of the Baskets with Ferne also, and draw small cords over it, that the Ferne may not fall away, nor the fruite scatter out, or jogge up and down: and thus you may carry fruit by Land or by Water, by Boat or Cart, as farre as you please: and the Ferne doth not onely keepe them from bruising, but also ripens them, especially Peares. When your fruit is brought to your Apple-Loft, or store-house, if you finde them not ripened enough, then lay them in thicker heapes upon Ferne, and cover them with Ferne also: and when they are neere ripe, then uncover them, and make the heapes thinner, so as the ayre may passe thorow them: and if you will not hasten the ripening of them, then lay them on the boards without any Ferne at all. Now for Winter, or long lasting Peares, they may be

packt either in Ferne or Straw, and carryed whether you please, and being come to the journeys end, must be laid upon sweet straw: but beware the room be not too warm nor windy, & too cold, for both are hurtfull: but in a temperate place where they may have aire, but not too much.

Of Wardens. Wardens are to be gathered, carried, pack't, and laid as Winter Peares are.

Of Medlers. Medlers are to be gathered about Michaelmas, after a frost hath touch't them; at which time they are in their full growth, and will then bee dropping from the tree, but never ripe upon the tree. When they are gathered, they must be laid in a basket, five, barrell, or any such caske, and wrapt about with woollen cloths, under, over, and on all sides, and also some weight laid upon them, with a board between: for except they be brought into a heat, they will never ripen kindly or taste well. Now when they have laine till you thinke some of them be ripe, the ripest, still as they ripen, must be taken from the rest: therefore poure them out into another five or basket leasurely, that so you may well finde them that be ripest, letting the hard one fall into the other basket, and those which be ripe laid aside: the other that be halfe ripe, sever into a third five or basket: for if the ripe and halfe ripe be kept together, the one wil be mouldy, before the other be ripe. And thus do till all be throughly ripe.

Of Quinces. Quinces should not be laid with other fruite; for the sent is offensive both to other fruite, and to those that keepe the fruite or come amongst them: therefore lay them by themselves upon sweet straw, where they may have ayre enough: they must be packt like Medlers, and gathered with Medlers.

Apples must be packt in Wheat or Rye-straw, and in

mands or baskets lyned with the same, and being gently handled, will ripen with such packing and lying together. If severall sorts of apples be packt in one mand or basket, then betweene every sort, lay sweet straw of a pretty thicknesse. To packe Apples.

Apples must not be powred out, but with care and leasure: first, the straw picke cleane from them, and then gently take out every severall sort, and place them by themselves: but if for want of roome you mixe the sorts together, then lay those together that are of equall lasting; but if they have all one taste, then they need no separation. Apples that are not of like colours should not be laid together, and if any such be mingled, let it bee amended, and those which are first ripe, let them be first spent; and to that end, lay those apples together, that are of one time of ripening: and thus you must use Pippins also, yet will they endure bruises better then other fruit, and whilst they are green will heale one another. Emptying and laying Apples.

Pippins though they grow of one tree, and in one ground, yet some will last better then other some, and some will bee bigger then others of the same kinde, according as they have more or lesse of the Sunne, or more or lesse of the droppings of the trees or upper branches: therefore let every one make most of that fruit which is fairest, and longest lasting. Againe, the largenesse and goodnesse of fruit consists in the age of the tree: for as the tree increaseth, so the fruite increaseth in bignesse, beauty, taste, firmenesse and otherwise, as it decreaseth. Difference in Fruit.

If you would transport your fruit far by water, then provide dry hogs-heads or barrels, and packe in your fruit by one with your hand, that no empty place may occasion fogging, and you must line your vessell at both ends with fine sweet straw; but not the sides, Transporting fruit by water.